

READINGS IN ECONOMICS



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READINGS IN ECONOMICS

Principles and Problems

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Introduction

THE ROADS TO ECONOMIC EDUCATION ARE NUMEROUS and practitioners in the field often disagree as to which leads most directly to the goal. Should the beginning student turn up the broad avenue marked Deductive Reasoning where the pavement is perilously thin over *ceteris paribus* or should he follow the more tortuous trail labeled the Inductive Approach, with the danger of getting so mired in facts that progress toward the destination seems interminable? Some would suggest that the traveler take a middle course where the bumps of reality are smoothed off by the application of logical deductions.

Whatever the route chosen it is well for the student to learn early that there are differences of opinion among the economic map makers; that they often quarrel among themselves over the nature of the economic terrain. In addition he should become aware that economists are also philosophers and not infrequently come to divergent conclusions from essentially the same set of facts and scientific principles, because of varying interpretations of what constitutes a good society.

There is no better way to bring out the major features of the subject than to give the student an opportunity to get a firsthand acquaintance with economic literature. This the editors of the present volume have done. Their selection of authors and topics encompasses a wide variety of opinions about important subjects. Included are the masters and the heretics. Adam Smith, Karl Marx, Thorstein Veblen, and the National Association of Manufacturers are represented. The use of this book to supplement the customary reading in an elementary course in economics should be both stimulating and rewarding to students and teachers alike.

Harold F. Williamson
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PART I PRINCIPLES

SECTION I

Introduction

AT THE OUTSET OF ANY COURSE OF STUDY IT IS well to know something of the scope of the materials to be discussed. Fundamentally, it is a question of how far we can go and how much we can cover. Yet, superimposed on this is the further, and even more delicate, question of how far we *should* go. Shall economics attempt to study *all* aspects of man's effort to earn a living or should it stop somewhere short of that goal? Should economics aim at infinite and universal knowledge or should it be confined to a study of the efficient use of limited resources for the satisfaction of unlimited wants? It is not surprising that the problem of finding the proper scope and method for economic science has been, and is, a fertile ground for discussion and debate. Let us hope that, unlike Omar Khayyám we shall not "evermore come out by the same door as in we went."

SCOPE

One group of economists—the Classicists—argues that only a very restricted and narrow definition of economics can be defended. They would make economics strictly a study of value and price: anything that commands a price in the market would belong in the field, but nothing else would. "What is the economist," asks one member of this school, "that he should go behind the market fact and set up a social philosophy of ultimate appraisals?" The classical approach would make economics a science and not an art: a science in the sense of being a social science, not a laboratory science, nor an experimental science, nor a natural or physical science, but one seeking in the mass of human material propositions of final truth, i.e. ultimate scientific laws. It would search for laws or principles or theories which are universal and eternal in their applicability; laws which are as valid in the present as they were in the past or shall be in the future; principles which operate in a capitalist as well as in a socialist economy; theories which are true for the United States as well as for Russia or China.

Another school—that composed of welfare economists—objects to such a narrow and limiting approach. The welfare economists are

not content with mere abstract principles of economic behavior. They would make economics the basis for social action designed to alleviate human suffering. "What profiteth us," they say, "all this study and research if it be not useful?" Economics must be a science which searches for "fruit" rather than "light." It must be a study which can aid in the promotion of the general welfare and the aggrandizement of economic welfare. "Let us," say the welfare economists, "revolt from the sordidness of mean streets and the joylessness of withered lives." Economics, as the *study* of man, must become the *servant* of man!

A third school—the Institutional School—rejects both the classical and welfare definitions of the proper scope for economic science not only as unattainable but also as meaningless. The Institutionalists deny the existence of any natural economic laws which are universal and eternal in their applicability and insist that all generalizations of economic behavior are strictly conditioned by time and place. They challenge the classical notion of "normality" and "equilibrium," arguing that man in the real world is neither normal nor rational; that he does not always seek only pleasure and always try to avoid pain; that he is the product of his cultural environment and hence thinks and acts in such manner as society's institutions have taught him to think and act. The Institutionalists want economics to be a study of institutions, their nature and their process of evolution. They would make economics more than a science which presents general principles and laws logically deduced from given assumptions; they want economics to be realistic—to be based on assumptions which correspond to the facts of the real world. Theirs would be a dynamic study of institutional fabric and institutional growth—a science whose scope is not sharply delineated from that of other social sciences. The Institutionalists would agree with William James that "to know one thing and to know it thoroughly is to know the universe."

METHOD

Each of the above viewpoints regarding the proper scope for economics is connected with the advocacy of a peculiar method to achieve the end in view. Thus, the Classicists, for example, extol the deductive, abstract, or hypothetical method. They hold deductive or *a priori* reasoning alone to be capable of leading to universal laws and principles. They reject experimentation as impractical for a social

science such as economics and attempt to understand the rapid and often violent changes of economic phenomena by a deductive analysis of equilibrium conditions.

The Institutionalists, on the other hand, are strongly in favor of the inductive, practical, or factual method. They support the use of *a posteriori* reasoning, which calls for a study of the actual data at hand before any elaborate theories are evolved or sweeping generalities accepted. Theirs may be termed an historical, or comparative-genetic, method of analysis.

These, then, are some of the controversies raging over the proper scope and method of economic science. Let us now visit the battle-fields of conflicting opinion, for among the living and dead of these ideas lie keys to the whole field of economic study.

CHAPTER 1

Scope and Method of Economics

SCOPE AND METHOD: A CLASSICAL VIEW¹

JOHN NEVILLE KEYNES²

J. N. Keynes here reviews the classical position on the problem of the scope and method of economic science, showing how the Classicists believed in well defined boundaries for our science with an abstract and deductive method of analysis.

There are special reasons, partly to be found in the nature of the subject itself, and partly due to extrinsic causes, why the logic of political economy needs a more detailed consideration.

In the first place, economic science deals with phenomena that are more complex and less uniform than those with which the natural sciences are concerned; and its conclusions, except in their most abstract form, lack both the certainty and the universality that pertain to physical laws. There is a corresponding difficulty in regard to the proper method of economic study; and the problem of defining the conditions and limits of the validity of economic reasonings becomes one of exceptional complexity. It is, moreover, impossible to establish the right of any one method to hold the field to the exclusion of others. Different methods are appropriate, according to the materials available, the stage of investigation reached, and the object in view; and hence arises the special task of assigning to each its legitimate place and relative importance.

Another reason for discussing the true principles of economic method in some detail is that fallacious reasonings are more common in political economy than in most other studies. This is due only in part to the difficulty and complexity of the subject-matter with which

¹ This selection is reprinted by kind permission of the publishers from John Neville Keynes, *The Scope and Method of Political Economy*, London: Macmillan and Co., Ltd., 1891, pages 6-10, 12-16.

² John Neville Keynes (1852-) is Registrary Emeritus in the University of Cambridge, England.

the science is concerned. It also deals with phenomena which, while encompassed with difficulties, are matters of every-day observation; and it has few technical terms that are not also terms of every-day discourse. A not unnatural consequence is that people think themselves competent to reason about economic problems, however complex, without any such preparatory scientific training as would be universally considered essential in other departments of enquiry. This temptation to discuss economic questions without adequate scientific preparation is all the greater, because economic conditions exert so powerful an influence upon men's material interests. "Few men," says General Walker, "are presumptuous enough to dispute with the chemist or mechanician upon points connected with the studies and labours of his life; but almost any man who can read and write feels himself at liberty to form and maintain opinions of his own upon trade and money. The economic literature of every succeeding year embraces works conceived in the true scientific spirit, and works exhibiting the most vulgar ignorance of economic history, and the most flagrant contempt for the conditions of economic investigation. It is much as if astrology were being pursued side by side with astronomy, or alchemy with chemistry." Broadly speaking, the general tendency of popular economics is towards rash generalizations and fallacious arguments *post hoc ergo propter hoc*. This is frequently combined with an imperfect analysis of fundamental conceptions, that leads to confusion of thought and the selection of false propositions as self-evident postulates; and where deductive reasoning is employed, its results are often applied without regard to the conditions requisite for their valid application.

To this it must be added that the sharp distinctions drawn by opposing schools, and their narrow dogmatism, have unnecessarily complicated the whole problem. The subject has become involved in heated controversies, that have not only made it wearisome to unprejudiced persons, but have also done injury to the credit of political economy itself. Outsiders are naturally suspicious of a science, in the treatment of which a new departure is so often and so loudly proclaimed essential. So far, it may be inferred, from economists having made progress in their science, they cannot even agree how to set about their work.

The besetting fallacy of writers on economic method has been well said to be one of exclusiveness. A single aspect or department of economic study is alone kept in view, and the method appropriate

thereto aggrandized, while other methods, of equal importance in their proper place, are neglected or even explicitly rejected. Hence the disputants on both sides, while right positively, are wrong negatively. Their criticisms on rejected methods are, moreover, too often based on misapprehension or misrepresentation. Methods are attacked for not doing what those who advocate their use have never imagined they could do; and the qualifications and limitations, with which each side expounds its own method, are overlooked by the other side. . . .

The main points involved in controversies about economic method may be indicated in outline by briefly contrasting two broadly distinguished schools, one of which describes political economy as theoretical, abstract, and deductive, while the other describes it as ethical, realistic, and inductive. It should be distinctly understood that this sharp contrast is not to be found in the actual economic writings of the best economists of either school. In the methods that they employ—when they are really discussing the same problems—there is to a great extent substantial agreement. They differ, however, in the relative importance that they attach to different aspects of their work; and in their formal statements about method, these differences become exaggerated . . .

There are minor differences in the principles laid down by . . . [the classical writers], but fundamentally they are in agreement in regarding political economy as a science that is in its scope theoretical, and in its method abstract and deductive. The following is a very brief summary of their characteristic doctrines.

In the first place, a sharp line of distinction is drawn between political economy itself and its applications to practice. The function of political economy is to investigate facts and discover truths about them, not to prescribe rules of life. Economic laws are theorems of fact, not practical precepts. Political economy is, in other words, a science, not an art or a department of ethical enquiry. It is described as standing neutral between competing social schemes. It furnishes information as to the probable consequences of given lines of action, but does not itself pass moral judgments, or pronounce what ought or what ought not to be. At the same time, the greatest value is attached to the practical applications of economic science; and it is agreed that the economist ought himself to turn his attention to them—not, however, in his character as a pure economist, but rather as a social philosopher, who, because he is an

economist, is in possession of the necessary theoretical knowledge. It is held that if this distinction is drawn, the social and ethical aspects of practical problems—which may be of vital importance—are less likely to be overlooked or subordinated.

As to its position amongst the sciences, political economy is not regarded as inseparably bound up with social philosophy in general. Economic facts are, it is allowed, influenced by social facts of very various kinds, and in their turn influence them; but it is nevertheless held to be possible up to a certain point to isolate the study of the phenomena of wealth from the study of other phenomena of society. Such isolation is, indeed, said to be necessitated by the requirements of science, which always proceeds by analysing concrete phenomena, so as to deal separately with their different aspects and the different elements of which they are composed. Economic science constitutes, therefore, a distinct though not entirely independent department of sociological speculation.

Passing to the means whereby the truths of the science are to be reached, it is held that on account of the variety and complexity of the influences to which economic phenomena are subject, the method of specific experience or direct induction is inadequate to yield more than empirical generalizations of uncertain validity. Experiment is, moreover, a resource from which the economist is debarred. It follows that we ought not to take as our starting point the analysis of concrete industrial facts. The right method of procedure is, on the contrary, deductive . . . The ultimate premises upon which the deductive science is based are, moreover, limited in number, so that the more important of them admit of precise enunciation at the outset. For while the circumstances helping in some degree to mould economic phenomena are indefinitely numerous, there are a few whose influence is predominant, far outweighing that of all the rest. These predominating circumstances consist of a few simple and indisputable facts of human nature—as, for example, that in their economic dealings men are influenced by the desire for wealth—taken in connexion with the physical properties of the soil and man's physiological constitution.

Political economy is accordingly spoken of as, in the main, an abstract science. For in basing its conclusions on a limited number of fundamental assumptions, it has to leave out of account many circumstances, which are of importance in individual cases, but are nevertheless unimportant when instances are taken in the mass. That

other motives besides the desire for wealth do operate on various occasions in determining men's economic activities is recognised. They are, however, to be neglected—at any rate in the first instance—since their influence is irregular, uncertain, and capricious. On these grounds, it is argued that the abstraction, whereby the science takes as its principal subject-matter an “economic man,” whose activities are determined solely by the desire for wealth, is both legitimate and necessary; and, in further justification thereof, an analogy is drawn from mathematics and physics, which are said to be based on corresponding abstractions . . .

ECONOMICS AS A STUDY OF PRICE¹

H. J. DAVENPORT²

Davenport here urges us to ignore the countless physical, social and moral questions raised by man's business of getting a living. Holding economics to be a study of price, Davenport would have the economist restrict his attention to the facts of the market place.

The time has arrived . . . for a definition of *Political Economy* in the present competitive order. But first it must be noted that no science is to be delimited by the nature of its subject matter. Test this by finding, for example, from the point of view of how many sciences you may discuss a stick of wood. Pretty much any fact may form part of the subject matter of pretty nearly every science. All knowledge is somehow or other related to all other knowledge, and every fact to every other fact—since this is a real universe in which we live, an organized, interrelated whole. Man's commercial and industrial activities, his business of getting a living, are in countless points of contact with questions of social morality and of physical health; with questions of pedagogy and of jurisprudence; with chemistry and physics; with religion, criminology, and penology; with psychology, sanitation, bacteriology, and dietetics. Geography

¹ This selection is reprinted by the kind permission of the publishers from H. J. Davenport, *The Economics of Enterprise*, New York: The Macmillan Co., 1913, pages 24-26, 126-127.

² Herbert Joseph Davenport (1861-1931) was sometime professor of economics in the University of Missouri and Cornell University.

is hand-maid to transportation. Geology discloses the gold and silver mines. Astronomy may hide the secret of droughts and famines.

That which delimits a field of science is, therefore, not the field of facts treated, but the purpose for which the facts are treated—the point of view or of approach, as determined by the central problem under investigation. As political economists we have small concern, then, with the Australian ballot law or with the popular election of senators; ours is not the problem of government. Nor shall we investigate the chemistry of dyestuffs, or the physics of waterfalls or of steam, or the problems of the electric motor. Yet we must do all this were the political economy of present society rightly defined as “an inquiry into the nature and causes of the wealth of nations”...(Adam Smith); or as the “science of the production and distribution of wealth” (J. S. Mill); or as the study that “examines that part of individual and social activity which is most closely connected with the attainment and with the use of the material [?] requisites of well-being” (Marshall); or as an “inquiry concerned with the production, distribution, and exchange of wealth and services” (Sidgwick); or as the science that “deals with those activities of man which are directed toward securing a living” (Bullock); or as “the study of the material world and of the activities and mutual relations of man so far as all these are the objective conditions of satisfying desires” (Fetter); or as “the science which treats of those social phenomena that are due to the wealth-getting and wealth-using activities of men” (Ely); or as “the social science that treats of man’s wants and of the goods upon which the satisfaction of his wants depends” (Seager); or as the “science of man in his business relations to wealth” (Seligman). Better than any of these, as hinting at the existence of a point of view or of a central problem, is Johnson’s formulation: “Economics is the science which deals with wealth in its most general aspect; namely, its value aspect.” Still better, perhaps, is the following: *The science that treats phenomena from the standpoint of price*;—therefore mostly, industry and business.

It is, in fact the value problem,—or more specifically and more accurately for present society,—the problem of market price, that is the central and unifying problem of present-day economics. Price, then, must attend and characterize all things that are economic; and all things so attended are so far economic in character. And more things than those which accurately are material must fall within the scope of price. Price extends its sway to the utmost limits of what-

ever is property, tangible or intangible,—whether material or immaterial. Property covers—and therefore price covers—debts, good will, franchises,—everything that is bought or sold. Price includes also many nonproperty facts—human services, such as the goods for which payment is made to the actor, preacher, teacher, or singer. And, by the way, all efforts or processes are economically productive for which a price is so paid or which, directly or indirectly, enhance the price.

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Nor, again, does it at all matter . . . what may be the artistic merit of the service or its moral quality—whether the advice be wholesome, the acting skillful, the music classic, the play clean, the teaching scholarly, the lecture conservative, the preaching godly. Each of these questions is irrelevant except in so far as it may have some bearing upon the price that will be bid. Peruna, Hop Bitters, obscene literature, indecent paintings, picture hats and corsets are wealth, irrespective of any ethical or conventional test to which they may or may not conform. Being marketable, price-bearing, they are wealth. So likewise of services; in no case is economic productivity a matter of piety or of merit or of social deserving. Were it otherwise, it would be necessary to change one's political economy according as one were talking to a prohibitionist or to a German. What is the economist, that he should go behind the market fact and set up a social philosophy of ultimate appraisals; "For who knoweth what is good for a man in this life, all the days of his vain life that he spendeth as a shadow?" If the generous fees that the lawyer receives for pleading an unjust cause are earned, so also is the daily intake of the beggar at the corner, or of the holdup man in the alley. Always and everywhere in the competitive regime the test of competitive production is competitive gain—proceeds.

ECONOMICS AS A STUDY OF MEANS AND ENDS¹LIONEL ROBBINS²

Professor Robbins here argues that economics is a study of man's disposal of limited means for the achievement of unlimited ends.

Let us turn back to the simplest case . . . the case of isolated man dividing his time between the production of real income and the enjoyment of leisure . . . Such a division may legitimately be said to have an economic aspect. Wherein does this aspect consist?

The answer is to be found in the formulation of the exact conditions which make such division necessary. They are four. In the first place, isolated man wants both real income and leisure. Secondly, he has not enough of either fully to satisfy his want of each. Thirdly, he can spend his time in augmenting his real income or he can spend it in taking more leisure. Fourthly, it may be presumed that, save in most exceptional cases, his want for the different constituents of real income and leisure will be different. Therefore he has to choose. He has to economise. The disposition of his time and his resources has a relationship to his system of wants. It has an economic aspect.

✓ This example is typical of the whole field of economic studies. From the point of view of the economist, the conditions of human existence exhibit four fundamental characteristics. The ends are various. The time and the means for achieving these ends are limited and capable of alternative application. At the same time the ends have different importance. Here we are, sentient creatures with bundles of desires and aspirations, with masses of instinctive tendencies all urging us in different ways to action. But the time in which these tendencies can be expressed is limited. The external world does not offer full opportunities for their complete achievement. Life is short. Nature is niggardly. Our fellows have other objectives. Yet we can use our lives for doing different things, our materials and the services of others for achieving different objectives.

¹ This selection is reprinted by kind permission of the publishers from Lionel Robbins, *An Essay on the Nature and Significance of Economic Science*, London: Macmillan and Co., Ltd., 1935, pages 12-16.

² Lionel Robbins (1898-) is professor of economics in the University of London.

Now *by itself* the multiplicity of ends has no necessary interest for the economist. If I want to do two things, and I have ample time and ample means with which to do them, and I do not want the time or the means for anything else, then my conduct assumes none of those forms which are the subject of economic science. Nirvana is not necessarily single bliss. It is merely the complete satisfaction of *all* requirements.

Nor is the mere limitation of means *by itself* sufficient to give rise to economic phenomena. If means of satisfaction have no alternative use, then they may be scarce, but they cannot be economised. The Manna which fell from heaven may have been scarce, but, if it was impossible to exchange it for something else or to postpone its use, it was not the object of any activity with an economic aspect.

Nor again is the alternative applicability of scarce means a complete condition of the existence of the kind of phenomena we are analysing. If the economic subject has two ends and one means of satisfying them, and the two ends are of equal importance, his position will be like the position of the ass in the fable, paralysed halfway between the two equally attractive bundles of hay.

But when time and the means for achieving ends are limited *and* capable of alternative application, *and* the ends are capable of being distinguished in order of importance, then behaviour necessarily assumes the form of choice. Every act which involves time and scarce means for the achievement of one end involves the relinquishment of their use for the achievement of another. It has an economic aspect. If I want bread and sleep, and in the time at my disposal I cannot have all I want of both, then some part of my wants of bread and sleep must go unsatisfied. If, in a limited lifetime, I would wish to be both a philosopher and a mathematician, but my rate of acquisition of knowledge is such that I cannot do both completely, then some part of my wish for philosophical or mathematical competence or both must be relinquished.

Now, not all the means for achieving human ends are limited. There are things in the external world which are present in such comparative abundance that the use of particular units for one thing does not involve going without other units for others. The air which we breathe, for instance, is such a "free" commodity. Save in very special circumstances, the fact that we need air imposes no sacrifice of time or resources. The loss of one cubic foot of air implies no sacrifice of alternatives. Units of air have no specific significance for

conduct. And it is conceivable that living creatures might exist whose "ends" were so limited that all goods for them were "free" goods, that no goods had specific significance.

But, in general, human activity with its multiplicity of objectives has not this independence of time or specific resources. The time at our disposal is limited. There are only twenty-four hours in the day. We have to choose between the different uses to which they may be put. The services which others put at our disposal are limited. The material means of achieving ends are limited. We have been turned out of Paradise. We have neither eternal life nor unlimited means of gratification. Everywhere we turn, if we choose one thing we must relinquish others which, in different circumstances, we would wish not to have relinquished. Scarcity of means to satisfy ends of varying importance is an almost ubiquitous condition of human behaviour.

Here, then, is the unity of subject of Economic Science, the forms assumed by human behaviour in disposing of scarce means. The examples we have discussed already harmonise perfectly with this conception. Both the services of cooks and the services of opera dancers are limited in relation to demand and can be put to alternative uses. The theory of wages in its entirety is covered by our present definition. So, too, is the political economy of war. The waging of war necessarily involves the withdrawal of scarce goods and services from other uses, if it is to be satisfactorily achieved. It has therefore an economic aspect. The economist studies the disposal of scarce means. He is interested in the way different degrees of scarcity of different goods give rise to different ratios of valuation between them, and he is interested in the way in which changes in conditions of scarcity, whether coming from changes in ends or changes in means—from the demand side or the supply side—affect these ratios. Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses . . .

ECONOMICS AS A STUDY OF WELFARE¹A. C. PIGOU²

Professor Pigou here views economics as a study which seeks knowledge, not for its own sake, but for the sake of healing the wounds of mankind. He regards the attainment of economic welfare—measured in terms of money—as the goal of economic science.

When a man sets out upon any course of inquiry, the object of his search may be either light or fruit—either knowledge for its own sake or knowledge for the sake of good things to which it leads. In various fields of study these two ideals play parts of varying importance. In the appeal made to our interest by nearly all the great modern sciences *some* stress is laid both upon the light-bearing and upon the fruit-bearing quality, but the proportions of the blend are different in different sciences. At one end of the scale stands the most general science of all, metaphysics, the science of reality. Of the student of that science it is, indeed, true that “he yet may bring some worthy thing for waiting souls to see”; but it must be light alone, it can hardly be fruit that he brings. Most nearly akin to the metaphysician is the student of the ultimate problems of physics. The corpuscular theory of matter is, hitherto, a bearer of light alone. Here, however, the other aspect is present in promise; for speculations about the structure of the atom may lead one day to the discovery of practical means for dissociating matter and for rendering available to human use the overwhelming resources of intra-atomic energy. In the science of biology the fruit-bearing aspect is more prominent. Recent studies upon heredity have, indeed, the highest theoretical interest; but no one can reflect upon that without at the same time reflecting upon the striking practical results to which they have already led in the culture of wheat, and upon the far-reaching, if hesitating, promise that they are beginning to offer for the better

¹ This selection is reprinted by the kind permission of the publishers from A. C. Pigou, *Economics of Welfare*, 4th Edition, London: Macmillan and Co., Ltd., 1938, pages 3–5, 10–11.

² Arthur Cecil Pigou (1877–) is emeritus professor of political economy in the University of Cambridge, England.

culture of mankind. In the sciences whose subject-matter is man as an individual there is the same variation of blending as in the natural sciences proper. In psychology the theoretic interest is dominant—particularly on that side of it which gives data to metaphysics; but psychology is also valued in some measure as a basis for the practical art of education. In human physiology, on the other hand, the theoretic interest, though present, is subordinate, and the science has long been valued mainly as a basis for the art of medicine. Last of all we come to those sciences that deal, not with individual men, but with groups of men; that body of infant sciences which some writers call sociology. Light on the laws that lie behind development in history, even light upon particular facts, has, in the opinion of many, high value for its own sake. But there will, I think, be general agreement that in the sciences of human society, be their appeal as bearers of light never so high, it is the promise of fruit and not of light that chiefly merits our regard. There is a celebrated, if somewhat too strenuous, passage in Macaulay's *Essay on History*: "No past event has any intrinsic importance. The knowledge of it is valuable, only as it leads us to form just calculations with regard to the future. A history which does not serve this purpose, though it may be filled with battles, treaties, and commotions, is as useless as the series of turnpike pickets collected by Sir Matthew Mite." That paradox is partly true. If it were not for the hope that a scientific study of men's social actions may lead, not necessarily directly or immediately, but at some time and in some way, to practical results in social improvement, not a few students of these actions would regard the time devoted to their study as time misspent. That is true of all social sciences, but especially true of economics. For economics "is a study of mankind in the ordinary business of life"; and it is not in the ordinary business of life that mankind is most interesting or inspiring. One who desired knowledge of man apart from the fruits of knowledge would seek it in the history of religious enthusiasm, of martyrdom, or of love; he would not seek it in the market-place. When we elect to watch the play of human motives that are ordinary—that are sometimes mean and dismal and ignoble—our impulse is not the philosopher's impulse, knowledge for the sake of knowledge, but rather the physiologist's, knowledge for the healing that knowledge may help to bring. Wonder, Carlyle declared, is the beginning of philosophy. It is not wonder, but rather the social enthusiasm which

revolts from the sordidness of mean streets and the joylessness of withered lives, that is the beginning of economic science. Here, if in no other field, Comte's great phrase holds good: "It is for the heart to suggest our problems; it is for the intellect to solve them. . . . The only position for which the intellect is primarily adapted is to be the servant of the social sympathies." . . .

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The goal sought is to make more easy practical measures to promote welfare—practical measures which statesmen may build upon the work of the economist, just as Marconi, the inventor, built upon the discoveries of Hertz. Welfare, however, is a thing of very wide range. There is no need here to enter upon a general discussion of its content. It will be sufficient to lay down more or less dogmatically two propositions; first, that the elements of welfare are states of consciousness and, perhaps, their relations; secondly, that welfare can be brought under the category of greater and less. A general investigation of all the groups of causes by which welfare thus conceived may be affected would constitute a task so enormous and complicated as to be quite impracticable. It is, therefore, necessary to limit our subject-matter. In doing this we are naturally attracted towards that portion of the field in which the methods of science seem likely to work at best advantage. This they can clearly do when there is present something measurable, on which analytical machinery can get a firm grip. The one obvious instrument of measurement available in social life is money. Hence, the range of our inquiry becomes restricted to that part of social welfare that can be brought directly or indirectly into relation with the measuring-rod of money. This part of welfare may be called economic welfare. It is not, indeed, possible to separate it in any rigid way from other parts . . .

The outline of our territory is, therefore, necessarily vague. Professor Cannan has well observed: "We must face, and face boldly, the fact that there is no precise line between economic and non-economic satisfactions, and, therefore, the province of economics cannot be marked out by a row of posts or a fence, like a political territory or a landed property. We can proceed from the undoubtedly economic at one end of the scale to the undoubtedly non-economic satisfactions, and, therefore, the province of economics or a ditch to cross." Nevertheless, though no precise boundary between economic and non-economic welfare exists, yet the test of

accessibility to a money measure serves well enough to set up a rough distinction. Economic welfare, as loosely defined by this test, is the subject-matter of economic science. . . .

ECONOMICS AS A STUDY OF PROCESS¹

THORSTEIN B. VEBLEN²

Veblen here discusses economics as a study of process, evolution, and development. He looks upon man in his economic relationships as a growing, changing, and dynamic entity rather than as a normal, stationary, and rational calculator of pleasure and pain. Veblen wants to study economic habits and their cumulative growth rather than fictitious states of normality and rationality. He expresses strong doubts whether a study of that sort can be separated from an analysis of cultural changes in life as a whole.

The standpoint of the classical economists, in their higher or definitive syntheses and generalisations, may not inaptly be called the standpoint of ceremonial adequacy. The ultimate laws and principles which they formulated were laws of the normal or the natural, according to a preconception regarding the ends to which, in the nature of things, all things tend . . .

In all this the agencies or forces causally at work in the economic life process are neatly avoided. The outcome of the method, at its best, is a body of logically consistent propositions concerning the normal relations of things—a system of economic taxonomy . . .

But what does all this signify? If we are getting restless under the taxonomy of a monocotyledonous wage doctrine and a cryptogamic theory of interest, with involute, loculicidal, tomentous and moniliform variants, what is the cytoplasm, centrosome, or karyokinetic

¹ This selection is reprinted from Thorstein Veblen, "Why Is Economics Not an Evolutionary Science?", *Quarterly Journal of Economics*, Volume XII, July, 1898, pages 382, 384, 386-394, 397.

² Thorstein Bunde Veblen (1857-1929) was sometime professor of economics in the University of Chicago, Stanford University, University of Missouri, and the New School for Social Research; he is generally recognized as the founder of the Institutional school of economics.

process to which we may turn, and in which we may find surcease from the metaphysics of normality and controlling principles? What are we going to do about it? The question is rather, What are we doing about it? There is the economic life process still in great measure awaiting theoretical formulation. The active material in which the economic process goes on is the human material of the industrial community. For the purpose of economic science the process of cumulative change that is to be accounted for is the sequence of change in the methods of doing things,—the methods of dealing with the material means of life . . .

The physical properties of the materials accessible to man are constants: it is the human agent that changes,—his insight and his appreciation of what these things can be used for is what develops. The accumulation of goods already on hand conditions his handling and utilisation of the materials offered, but even on this side—the “limitation of industry by capital”—the limitation imposed is on what men can do and on the methods of doing it. The changes that take place in the mechanical contrivances are an expression of changes in the human factor. Changes in the material facts breed further change only through the human factor. It is in the human material that the continuity of development is to be looked for; and it is here, therefore, that the motor forces of the process of economic development must be studied if they are to be studied in action at all. Economic action must be the subject matter of the science if the science is to fall into line as an evolutionary science.

Nothing new has been said in all this. But the fact is all the more significant for being a familiar fact. It is a fact recognised by common consent throughout much of the later economic discussion, and this current recognition of the fact is a long step towards centering discussion and inquiry upon it. If economics is to follow the lead or the analogy of the other sciences that have to do with a life process, the way is plain so far as regards the general direction in which the move will be made.

The economists of the classical trend have made no serious attempt to depart from the standpoint of taxonomy and make their science a genetic account of the economic life process . . .

In all the received formulations of economic theory, whether at the hands of English economists or those of the Continent, the human material with which the inquiry is concerned is conceived in hedonistic terms; that is to say, in terms of a passive and substantially inert

and immutably given human nature. The psychological and anthropological preconceptions of the economists have been those which were accepted by the psychological and social sciences some generations ago. The hedonistic conception of man is that of a lightning calculator of pleasures and pains, who oscillates like a homogeneous globule of desire of happiness under the impulse of stimuli that shift him about the area, but leave him intact. He has neither antecedent nor consequent. He is an isolated, definitive human datum, in stable equilibrium except for the buffets of the impinging forces that displace him in one direction or another. Self-imposed in elemental space, he spins symmetrically about his own spiritual axis until the parallelogram of forces bears down upon him, whereupon he follows the line of the resultant. When the force of the impact is spent, he comes to rest, a self-contained globule of desire as before. Spiritually, the hedonistic man is not a prime mover. He is not the seat of a process of living, except in the sense that he is subject to a series of permutations enforced upon him by circumstances external and alien to him.

The later psychology, reenforced by modern anthropological research, gives a different conception of human nature. According to this conception . . . the activity is itself the substantial fact of the process, and the desires under whose guidance the action takes place are circumstances of temperament which determine the specific direction in which the activity will unfold itself in the given case. These circumstances of temperament are ultimate and definitive for the individual who acts under them, so far as regards his attitude as agent in the particular action in which he is engaged. But, in the view of the science, they are elements of the existing frame of mind of the agent, and are the outcome of his antecedents and his life up to the point at which he stands. They are the products of his hereditary traits and his past experience, cumulatively wrought out under a given body of traditions, conventionalities, and material circumstances; and they afford the point of departure for the next step in the process. The economic life history of the individual is a cumulative process of adaptation of means to ends that cumulatively change as the process goes on, both the agent and his environment being at any point the outcome of the last process. His methods of life to-day are enforced upon him by his habits of life carried over from yesterday and by the circumstances left as the mechanical residue of the life of yesterday.

What is true of the individual in this respect is true of the group in which he lives . . .

The economic life history of any community is its life history in so far as it is shaped by men's interest in the material means of life. This economic interest has counted for much in shaping the cultural growth of all communities. Primarily and most obviously, it has guided the formation, the cumulative growth, of that range of conventionalities and methods of life that are currently recognized as economic institutions; but the same interest has also pervaded the community's life and its cultural growth at points where the resulting structural features are not chiefly and most immediately of an economic bearing. The economic interest goes with men through life, and it goes with the race throughout its process of cultural development. It affects the cultural structure at all points, so that all institutions may be said to be in some measure economic institutions. This is necessarily the case, since the base of action—the point of departure—at any step in the process is the entire organic complex of habits of thought that have been shaped by the past process. The economic interest does not act in isolation, for it is but one of several vaguely isolable interests on which the complex of teleological activity carried out by the individual proceeds. The individual is but a single agent in each case; and he enters into each successive action as a whole, although the specific end sought in a given action may be sought avowedly on the basis of a particular interest; as *e.g.*, the economic, aesthetic, sexual, humanitarian, devotional interests. Since each of these passably isolable interests is a propensity of the organic agent man, with his complex of habits of thought, the expression of each is affected by habits of life formed under the guidance of all the rest. There is, therefore, no neatly isolable range of cultural phenomena that can be rigorously set apart under the head of economic institutions, although a category of "economic institutions" may be of service as a convenient caption, comprising those institutions in which the economic interest most immediately and consistently finds expression, and which most immediately and with the least limitation are of an economic bearing.

From what has been said it appears that an evolutionary economics must be the theory of a process of cultural growth as determined by the economic interest, a theory of a cumulative sequence of economic institutions stated in terms of the process itself . . .

It is necessarily the aim of such an economics to trace the cumula-

tive working-out of the economic interest in the cultural sequence. It must be a theory of the economic life process of the race or the community . . .

Under the stress of modern technological exigencies, men's everyday habits of thought are falling into the lines that in the sciences constitute the evolutionary method; and knowledge which proceeds on a higher, more archaic plane is becoming alien and meaningless to them. The social and political sciences must follow the drift, for they are already caught in it.

ECONOMICS AS AN ART¹

JOHN NEVILLE KEYNES²

J. N. Keynes here opposes the view that economics be an art rather than a science. He warns that if economics should attempt to lay down absolute rules for the regulation of human conduct, it will no longer be a well defined science but will become largely non-economic in character.

Some of the difficulties, which arise in the endeavour to determine the scope of political economy considered as an art . . . may be raised in regard to, first, the range of well-being contemplated by the art; and, secondly, the precise nature of the ideal at which it aims.

(1) Under the first of the above heads it may be asked whether the aim of the economic art is individual or social; and whether it is national or cosmopolitan.

(a) It is clear that individuals as well as societies may in their own interests turn to account their study of economic science. The monopolist may derive practical guidance from the treatment of monopoly-value; the manufacturer from the discussion of over-production and industrial depression; the banker from the enquiry into the conditions under which crises tend to become periodic; the trades-unionist from the analysis of the conditions favourable to the success of a strike. We might, accordingly, recognise a branch of the

¹ This selection is reprinted by kind permission of the publishers from John Neville Keynes, *The Scope and Method of Political Economy*, London: Macmillan and Co., Ltd., 1891, pages 72-80.

² John Neville Keynes (1852-) is Registry Emeritus in the University of Cambridge, England.

economic art, concerned with the principles according to which private persons should be guided in the pursuit of their own economic interests. There are, moreover, technical arts, such as the art of banking, which are to some extent based on economic science, but whose aim cannot be described as social.

It is, however, generally agreed by those who advocate the recognition of an art of political economy that it aims at some result, that is desirable, not merely from the point of view of any given individual, but from the point of view of society taken as a whole. It is not regarded as an art of getting rich, or as an art of speculation, or as an art of investment, or as professing to indicate how producers should organize and carry on their business, in order to make their profits as great as possible. The art of political economy is, in other words, not identified with the whole of the practical applications of economic science.

(b) Assuming that the aim of the economic art is social, not individual, the further question may be asked, whether it aims merely at national prosperity and national greatness, or at some result that is desirable for the whole human race. This point is suggested by List's distinction between *political economy* and *cosmopolitical economy*. He regards the former as limiting its teaching to "the enquiry how a *given nation* can obtain (under the existing conditions of the world) prosperity, civilization, and power, by means of agriculture, industry, and commerce"; while the latter "teaches how the entire human race may attain prosperity." . . .

Since then a conflict is sometimes possible, it behooves the exponent of the economic art to make clear his view as to what the aim of the art really is. Perhaps the most obvious solution is to recognise, as List suggests, two distinct arts—an art of *cosmopolitan* economy, and an art of *national* economy. The precepts of the former might often require modification to suit the special circumstances of different nations, but it would be cosmopolitan in the sense that it would have regard to the well-being of the greatest number, irrespective of nationality. The latter would deliberately sacrifice the interests of other nations, if they happened to be in conflict with those of the nation specially under consideration.

(2) A more fundamental question in regard to the scope of political economy considered as an art relates to the nature of the ideal at which it aims. (a) Does it seek merely to point out the laws, and institutions, and economic habits, that are most favourable to the

production and accumulation of wealth? (b) Or does it enquire further by what means an ideally just distribution of wealth may be attained? (c) Or does it widen its range still further, and ask how all economic activities both of the State and of individuals should be moulded, with a view to the general well-being in the fullest and broadest sense? This last alternative represents the prevailing view amongst German economists.

(a) If the end at which the art of political economy aims is simply the increased production of wealth, its scope is certainly definite, and the data upon which its conclusions are based belong exclusively to economic science. Since, however, the production of wealth is not the sole or supreme end that a society will have in view in framing its laws and shaping its institutions, the economic art so conceived can lay down no absolute or final rules. It can only speak conditionally, and say that in so far as the increased production or accumulation of wealth is concerned, such and such a line of action should be adopted. Hence, before deciding to act upon the hypothetical precepts of political economy (so interpreted), it is necessary to enquire how far they are consistent with other social aims, and how far they satisfy the claims of justice. Wherever there is conflict, an appeal must be made to some other and higher authority. This authority must determine to what extent each set of considerations shall be subordinated to the others.

It seems a doubtful gain to construct a definite art of political economy in this sense. For inasmuch as the science of economics itself contains all the information that is requisite, it will suffice to call attention to the practical bearing of its theorems, without systematically converting them into precepts. To frame a definite system of precepts, having regard entirely to the increased production of wealth, can indeed hardly fail to give rise to misapprehension. As a matter of fact, political economy has not unfrequently been subjected to startling misrepresentations, because it has first been identified with the art of making wealth a maximum, and then the necessarily hypothetical character of such an art has been forgotten. It is of little use to protest that economic precepts are not necessarily to be acted upon. If we have once formulated maxims of policy, and proclaimed that economic principles are directly practical, the impression that economists desire to subordinate all considerations to the increase of wealth will certainly be encouraged. If, however, it can be made clear that economic principles are in themselves posi-

tive, and that, whilst economics shews, amongst other things, how laws and institutions influence the production and accumulation of wealth, still it does not itself base any rules of action upon such knowledge, but merely places the results of its investigations at the service of the legislator and social reformer, to be by them duly weighed and considered, then the chance of such misapprehension will at any rate be reduced to a minimum.

(*b*) According to Professor Sidgwick, "we may take the subject of political economy considered as an art to include, besides the theory of provision for governmental expenditure, (1) the art of making the proportion of produce to population a maximum, . . . and (2) the art of rightly distributing produce among members of the community, whether on any principle of equity or justice, or on the economic principle of making the whole produce as useful as possible." This conception of the economic art is broader than that discussed above. But it seems to go either too far or else not quite far enough. For we pass outside the boundary of economic considerations in the narrowest sense, taking account also of considerations of justice; and yet our maxims will still be, in some cases, only conditional. They cannot claim to be absolute, until we have taken into account all classes of considerations that may in any way be pertinent. In framing maxims of taxation and State finance, for example, political and social aims have to be borne in mind as well as equitable and strictly economic aims. The same may be said of free trade or protectionist maxims. Again, in seeking to determine what is the ideal distribution of wealth, we ought to consider not merely the relation of distribution to desert, but also the manner in which methods of distribution affect the various other elements of social well-being. The individualistic organization of industry is by some writers condemned on the ground of the anti-social spirit, engendered by the competitive struggle. On the other hand, the socialistic organization of industry is by a different set of writers condemned on the ground that it hinders the realisation of individual freedom, and the development of individual character. Both these arguments are independent of the effects of socialism and individualism on the production and distribution of wealth.

(*c*) According to the third conception of the economic art, its aim is to direct the economic activities of the State and of individuals, with a view to the completest realization of social well-being. "Political economy," says Professor Schönberg, representing the view

of the dominant German school, as well as his own view, "does not ask primarily whether the greatest possible amount of wealth is produced, but rather how men live, how far through their economic activity the moral aims of life are fulfilled, and how far the demands of justice, humanity, and morality are satisfied." Professor Ely, taking a similar view, and writing on behalf of the so-called "new school" of economists in the United States, describes the ideal of political economy as "the most perfect development of all human faculties in each individual, which can be attained." The aim, he goes on to say, is "such a production, and such a distribution, of economic goods as must in the highest practicable degree subserve the end and purpose of human existence for all members of society." The end had in view is now the supreme end for which a society exists, and every question that arises is to be considered from all sides, and not from a single point of view. The rules laid down will accordingly be no longer conditional, but absolute, at any rate in relation to the particular country or state of civilization under discussion.

The above corresponds with the attitude that the great majority of economists of all schools have at least desired to take, so far as they have attempted a complete solution of practical problems for social purposes. The conception seems, moreover, to raise the economist to a position of greater importance than he can occupy, so long as he limits himself to purely theoretical investigations or merely conditional precepts. But does he not herein become a good deal more than an economist? He will certainly need for his scientific basis very much more than economic science can by itself afford, for he must be a student of political and social science in the widest sense. He must also solve fundamental problems of social morality. We have, in fact, no exception to the general rule that arts, claiming to lay down absolute rules, cannot be based exclusively on single theoretical sciences.

We are, accordingly, led to the conclusion . . . that a definitive art of political economy, which attempts to lay down absolute rules for the regulation of human conduct, will have vaguely defined limits, and be largely non-economic in character.

THE PROPER METHOD: INDUCTION OR DEDUCTION? ¹

MARY JEAN BOWMAN ²

Mary Jean Bowman here urges that time should not be spent quibbling over the inductive and deductive methods in economics nor over the differences between theoretical and institutional economics. All are important and all are part of the same subject of economics.

The first question is: What are the chief purposes served by economics as a field of knowledge and of study?

On this point I believe we would find a near-universal agreement by members of the profession; i.e., that economics is primarily a *social* study, the importance of which derives from the contribution it can make to the understanding and solution of social problems. This implies that training in economics is first and foremost training for citizenship, whether that citizenship is to be exercised professionally or on a lay level. It implies also that business training, for private profit making, must be distinguished from training in general—or should we say in social—economics. Business economics cannot in any sense be substituted for general economics, or vice versa, however much the subject matter of the two may overlap.

Another purpose of the study of economics might be mentioned; i.e., training in scientific discipline, in a field in which many persons begin with emotional preconceptions and in which laboratory techniques are not available. Such training is accomplished only when the students become aware of the character and limitations of the methods of economic analysis. As an end purpose I consider this decidedly minor. However, as I shall attempt to show later, I believe it to be an indispensable prerequisite to the accomplishment of the citizenship purpose.

From these answers to my first question follows my second: What

¹ This selection is reprinted by the kind permission of the publishers and author from the *American Economic Review, Papers and Proceedings*, Volume 36, Number 2, pages 857-859.

² Mary Jean Bowman was formerly a member of the department of economics and sociology, Iowa State College.

are the ways in which "theoretical" and "institutional" knowledge contribute to the formulation of public policy?

In answering this question it is necessary to distinguish between the detailed factual information needed in a particular case and the basic techniques and tools available for meeting problems. It must be evident that no course or series of courses in economics can provide the mass of detail that would be needed in dealing with all-important current economic problems—not to mention problems that will arise in the future. I assume, therefore, that even the most "institutional" economist will make no such attempt. This question then takes the form: What kinds of background are provided by economic knowledge as the foundation from which each particular concrete problem—broad or narrow—may be approached?

Economists in America have gone through a period of struggle between the so-called "institutional" and the "theoretical" schools; but despite an occasional flare-up here and there, this polarization of attitudes has largely disappeared among the advance guard of the profession. It remains to harass us at the level of introductory teaching for a number of reasons. . . . However, I am convinced that even at this level the apparent conflict is largely due to misconceptions concerning the character of each approach to economic problems. Theoretical analysis contributes to the understanding of the operation of the economy only insofar as its models approximate significant aspects of concrete reality; that is, of the operation of economic institutions here and now. On the other hand, a detailed descriptive analysis has no carry-over from one problem to another and even the most extreme "institutionalist" must distill out significant elements from the infinite detail of economic life. Only thus can the human mind attain to any comprehension, and only thus can institutional analysis make any contributions to policy formation beyond *ad hoc* decisions. Such distillation means the creation of models that are, at the least, theory in embryo. Thus theory put to work for the understanding of the economy approaches institutionalism, and institutionalism put to work contributes to the theoretical tool chest. We then find ourselves arguing about inductive versus deductive theory, and our basic problem is laid out clearly before us; i.e., the integration of the two. Both together contribute to the formulation of public policy through the understanding of economic processes and of the kinds of developments that may be latent in given problem situations.

Theory contributes also in quite another way. It assists in the more precise defining of social norms, such as the maximization of production and the attainment of an optimum allocation of resources. It thus provides guidelines for the development of policy measures. This is a fact too little recognized. I am sure that the most vociferous exponents of traditional institutionalism would say that in taking this position I was merely emitting a few last defensive gasps on behalf of the dying body of Marshallian economics. Others will accuse me of making value judgments, thus forsaking objectivity. I deny both these charges, but time prevents me from going into the evidence for my case.

My third question is this: What are the major resistances of new students to the acquiring of economic tools for use in the exercise of citizenship?

The answer to this question will vary in emphasis with the background of the student body involved. Nevertheless, I suspect that my experience has been commonly repeated in the experience of other teachers. I have found resistances to the acceptance of a basically social point of view, and to the development of a sense of social responsibility. At the same time, many students are quite unprepared to recognize validity or objectivity in *any* tools of analysis applied in an area of study in which controlled experimentation in the pattern of the natural sciences is unattainable. This is aggravated by the fact that economists frequently put forth ideas that conflict with students' preconceptions (a difficulty particularly important among men whose economic preconceptions are generally the more fully developed). And students may quite reasonably distrust us on the grounds of our patent failure to solve many of the contemporary economic ills of the society—particularly that of employment. In all of these resistances the students reflect the adult communities from which they come; much of the resistance is subconscious, taking the form of a blocking of the mind to open examination of the materials presented in text or classroom. In addition, student resistance sometimes covers an unconscious (or even a conscious) recognition of the inconsistencies and the fuzziness in the course content, or of our failure to bring out the "so what" of a considerable section of the course. Such resistances can frequently be distinguished quite readily from the other types, and they are a clear indication that something is seriously wrong with the teachers or the state of economic thought as a whole.

SECTION II

Production: Specialization and Exchange

IT IS NOTHING NEW OR STARTLING NOWADAYS FOR us not to supply our own needs for soap. Nor does it seem strange that many of us could not even describe the process of making soap. We do not feel ashamed of not understanding the intricacies involved in manufacturing steel or assembling an automobile. On the contrary, we take distinct pride in the fact that we do not need to know how to make soap, steel, or automobiles. We are glad to be able to depend on others to do such things for us and to rest content in the knowledge that they are doing a much better job than we could. Ours is not an era like that of 150 years ago, when self-sufficiency was the order of the day. One of the distinct marks of the economic progress of our age is rooted in the fact that inventive genius has given us a civilization of specialists.

We have become richer by producing goods in accordance with the principle of specialization, for specialization has enabled us to save labor—to use our scarce resources more efficiently and economically. Specialization has freed us from the drudgery of much former toil and trouble by reducing the task of production to a series of coordinated but functionally separate stages, each stage of operation giving employment to a different group of people. Specialization has made people more proficient in their functional specialty and thus saved them from the fate of being a “jack of all trades and a master of none.” It has cut down on the time lost in passing from one machine to another or from one part of the factory to another. Finally, specialization has facilitated production by enabling the use of more machinery and more specialized machinery and has thus tended to increase the output of goods and services.

These are some of the advantages of specialization and the division of labor. Yet, they can be obtained only if specialization is supplemented by a system of exchange, for without exchange there is little incentive to specialize. If there is no exchange system whereby one good can be traded for another, how can the specialist who makes only one part of a shoe ever provide himself with food or

clothing, or even a whole shoe? Manifestly, specialization without exchange would be absurd, just as exchange without specialization would be impossible. As man has, therefore, come farther away from the stages of barbarism, he has become less self-sufficient and has instituted often intricate systems of exchange as a necessary concomitant of, and counterpart to, the growth of specialization.

The advantages derived from specialization are not confined to functional specialization alone, but apply with equal force to the division of labor on a regional basis. Since different areas of a nation or the world possess peculiarly advantageous conditions for the production of certain commodities, man can stretch his scarce resources farthest by taking advantage of these regional differences. By regional specialization he can use each area for the production of those commodities for which it is best suited, i.e. which it can produce with the greatest facility or at the lowest cost. By specializing and trading with other regions, people can benefit from the superiority of their own area in the making of some things, while securing from other areas goods which they themselves cannot make or make only by expending a greater amount of time and effort. Regional specialization and exchange based on comparative advantage thus tend to benefit consumers everywhere by providing them with a larger volume of goods, produced at lower costs, and sold at lower prices.

In spite of these advantages to be derived from a regional division of labor and free exchange, man has occasionally deemed it wise to erect barriers against their unfettered development. He has—for non-economic reasons—interfered with the free exchange of goods, especially across national boundaries. He has thus deprived himself of the larger production and lower costs which regional specialization sustains. Before we turn to an examination of the interference with regional specialization on a world-wide scale (which is the task of Section XI, however, let us be sure we understand the principles underlying these important phenomena of our modern economic life.

CHAPTER 2

Functional Specialization

THE NATURE OF SPECIALIZATION¹

ADAM SMITH²

In this classic selection Adam Smith presents the advantages of functional specialization and division of labor.

The greatest improvement in the productive powers of labour, and the greater skill, dexterity, and judgment with which it is anywhere directed, or applied, seem to have been the effects of the division of labour. . . .

To take an example from a very trifling manufacture; but one in which the division of labour has been very often taken notice of, the trade of the pin-maker; a workman not educated to this business (which the division of labour has rendered a distinct trade), nor acquainted with the use of the machinery employed in it (to the invention of which the same division of labour has probably given occasion), could scarce, perhaps, with his utmost industry, make one pin in a day, and certainly could not make twenty. But in the way in which this business is now carried on, not only the whole work is a peculiar trade, but it is divided into a number of branches, of which the greater part are likewise peculiar trades. One man draws out the wire, another straightens it, a third cuts it, a fourth points it, a fifth grinds it at the top for receiving the head; to make the head requires two or three distinct operations; to put it on is a peculiar business; to whiten the pins is another; it is even a trade by itself to put them into the paper; and the important business of making a pin is, in this manner, divided into about eighteen distinct

¹ This selection is reprinted from Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776, Book I, Chapter 1.

² Adam Smith (1723–1790) was sometime professor of logic and later moral philosophy in the University of Glasgow, and finally commissioner of customs at Edinburgh. He is regarded as the founder of the Classical school of economics.

operations, which, in some manufactories, are all performed by distinct hands, though in others the same man will sometimes perform two or three of them. I have seen a small manufactory of this kind where ten men only were employed, and where some of them consequently performed two or three distinct operations. But though they were very poor, and therefore but indifferently accommodated with the necessary machinery, they could, when they exerted themselves, make among them about twelve pounds of pins in a day. There are in a pound upwards of four thousand pins of a middling size. Those ten persons, therefore, could make among them upwards of forty-eight thousand pins in a day. Each person, therefore, making a tenth part of forty-eight thousand pins, might be considered as making four thousand eight hundred pins in a day. But if they had all wrought separately and independently, and without any of them having been educated to this peculiar business, they certainly could not each of them have made twenty, perhaps not one pin a day; that is, certainly, not the two hundred and fortieth, perhaps not the four thousand eight hundredth part of what they are at present capable of performing, in consequence of a proper division and combination of their different operations.

In every other art and manufacture, the effects of the division of labour are similar to what they are in this very trifling one; though, in many of them, the labour can neither be so much subdivided, nor reduced to so great a simplicity of operation. The division of labour, however, so far as it can be introduced, occasions, in every art, a proportionable increase of the productive powers of labour. The separation of different trades and employments from one another, seems to have taken place, in consequence of this advantage. This separation, too, is generally carried furthest in those countries which enjoy the highest degree of industry and improvement; what is the work of one man in a rude state of society, being generally that of several in an improved one. In every improved society, the farmer is generally nothing but a farmer; the manufacturer, nothing but a manufacturer. The labour, too, which is necessary to produce any one complete manufacture, is almost always divided among a great number of hands. How many different trades are employed in each branch of the linen and woollen manufactures, from the growers of the flax and the wool, to the bleachers and smoothers of the linen, or to the dyers and dressers of the cloth! . . .

This great increase of the quantity of work, which, in conse-

quence of the division of labour, the same number of people are capable of performing, is owing to three different circumstances; first, to the increase of dexterity in every particular workman; secondly, to the saving of the time which is commonly lost in passing from one species of work to another; and lastly, to the invention of a great number of machines which facilitate and abridge labour, and enable one man to do the work of many.

First, the improvement of the dexterity of the workman necessarily increases the quantity of the work he can perform; and the division of labour, by reducing every man's business to some one simple operation, and by making this operation the sole employment of his life, necessarily increases very much the dexterity of the workman. A common smith, who, though accustomed to handle the hammer, has never been used to make nails, if upon some particular occasion he is obliged to attempt it, will scarce, I am assured, be able to make above two or three hundred in a day, and those, too, very bad ones. A smith who has been accustomed to make nails, but whose sole or principal business has not been that of a nailer, can seldom with his utmost diligence make more than eight hundred or a thousand nails in a day. I have seen several boys under twenty years of age who had never exercised any other trade but that of making nails, and who, when they exerted themselves, could make, each of them, upwards of two thousand three hundred nails in a day. The making of a nail, however, is by no means one of the simplest operations. The same person blows the bellows, stirs or mends the fire as there is occasion, heats the iron, and forges every part of the nail. In forging the head too he is obliged to change his tools. The different operations into which the making of a pin, or of a metal button, is subdivided, are all of them much more simple, and the dexterity of the person, of whose life it has been the sole business to perform them, is usually much greater. The rapidity with which some of the operations of those manufactures are performed, exceeds what the human hand could, by those who had never seen them, be supposed capable of acquiring.

Secondly, the advantage which is gained by saving the time commonly lost in passing from one sort of work to another, is much greater than we should at first view be apt to imagine it. It is impossible to pass very quickly from one kind of work to another, that is carried on in a different place, and with quite different tools. A country weaver, who cultivates a small farm, must lose a good

deal of time in passing from his loom to the field, and from the field to his loom. When the two trades can be carried on in the same workhouse, the loss of time is no doubt much less. It is even in this case, however, very considerable. A man commonly saunters a little in turning his hand from one sort of employment to another. When he first begins the new work he is seldom very keen and hearty; his mind, as they say, does not go to it, and for some time he rather trifles than applies to good purpose. The habit of sauntering and of indolent careless application, which is naturally, or rather necessarily, acquired by every country workman who is obliged to change his work and his tools every half hour, and to apply his hand in twenty different ways almost every day of his life, renders him almost always slothful and lazy, and incapable of any vigorous application even on the most pressing occasions. Independent, therefore, of his deficiency in point of dexterity, this cause alone must always reduce considerably the quantity of work which he is capable of performing.

Thirdly, and lastly, everybody must be sensible how much labour is facilitated and abridged by the application of proper machinery. It is unnecessary to give any example. I shall only observe, therefore, that the invention of all those machines by which labour is so much facilitated and abridged, seems to have been originally owing to the division of labour. Men are much more likely to discover easier and readier methods of attaining any object, when the whole attention of their minds is directed towards that single object, than when it is dissipated among a great variety of things. But in consequence of the division of labour, the whole of every man's attention comes naturally to be directed towards some one very simple object. It is naturally to be expected, therefore, that some one or other of those who are employed in each particular branch of labour should soon find out easier and readier methods of performing their own particular work, wherever the nature of it admits of such improvement. A great part of the machines made use of in those manufactures in which labour is most subdivided, were originally the inventions of common workmen, who, being each of them employed in some very simple operation, naturally turned their thoughts towards finding out easier and readier methods of performing it. Whoever has been much accustomed to visit such manufactures, must frequently have been shown very pretty machines, which were the inventions of such workmen, in order to facilitate and quicken their own particular part of the work. In the first fire-engines, a boy was con-

stantly employed to open and shut alternately the communication between the boiler and the cylinder, according as the piston either ascended or descended. One of those boys, who loved to play with his companions, observed that, by tying a string from the handle of the valve which opened this communication, to another part of the machine, the valve would open and shut without his assistance, and leave him at liberty to divert himself with his playfellows. One of the greatest improvements that has been made upon this machine, since it was first invented, was in this manner the discovery of a boy who wanted to save his own labour.

All the improvements in machinery, however, have by no means been the inventions of those who had occasion to use the machines. Many improvements have been made by the ingenuity of the makers of the machines, when to make them became the business of a peculiar trade; and some by that of those who are called philosophers or men of speculation, whose trade it is not to do anything, but to observe everything; and who, upon that account, are often capable of combining together the powers of the most distant and dissimilar objects. In the progress of society, philosophy or speculation becomes, like every other employment, the principal or sole trade and occupation of a particular class of citizens. Like every other employment too, it is subdivided into a great number of different branches, each of which affords occupation to a peculiar tribe or class of philosophers; and this subdivision of employment in philosophy, as well as in every other business, improves dexterity and saves time. Each individual becomes more expert in his own peculiar branch, more work is done upon the whole, and the quantity of science is considerably increased by it.

It is the great multiplication of the productions of all the different arts, in consequence of the division of labour, which occasions, in a well-governed society, that universal opulence which extends itself to the lowest ranks of the people. Every workman has a great quantity of his own work to dispose of beyond what he himself has occasion for; and every other workman being exactly in the same situation, he is enabled to exchange a great quantity of his own goods for a great quantity, or, what comes to the same thing, for the price of a great quantity of theirs. He supplies them abundantly with what they have occasion for, and they accommodate him as amply with what he has occasion for, and a general plenty diffuses itself through all the different ranks of society.

Observe the accommodation of the most common artificer or day-labourer in a civilized and thriving country, and you will perceive that the number of people of whose industry a part, though but a small part, has been employed in procuring him this accommodation, exceeds all computation. The woollen coat, for example, which covers the day-labourer, as coarse and rough as it may appear, is the produce of the joint labour of a great multitude of workmen. The shepherd, the sorter of the wool, the wool-comber or carder, the dyer, the scribbler, the spinner, the weaver, the fuller, the dresser, with many others, must all join their different arts in order to complete even this homely production. . . . Without the assistance and co-operation of many thousands, the very meanest person in a civilized country could not be provided, even according to what we very falsely imagine the easy and simple manner in which he is commonly accommodated. Compared, indeed, with the more extravagant luxury of the great, his accommodation must no doubt appear extremely simple and easy; and yet it may be true, perhaps, that the accommodation of an European prince does not always so much exceed that of an industrious and frugal peasant, as the accommodation of the latter exceeds that of many an African king, the absolute master of the lives and liberties of ten thousand naked savages.

THE CAUSES OF SPECIALIZATION¹

ADAM SMITH²

Adam Smith here pictures specialization as arising out of man's propensity to truck, barter, and exchange one thing for another.

This division of labour, from which so many advantages are derived, is not originally the effect of any human wisdom, which foresees and intends that general opulence to which it gives occasion.

¹ This selection is reprinted from Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776, Book I, Chapter 2.

² Adam Smith (1723–1790) was sometime professor of logic and later moral philosophy in the University of Glasgow, and finally commissioner of customs at Edinburgh. He is regarded as the founder of the Classical school of economics.

It is the necessary, though very slow and gradual, consequence of a certain propensity in human nature which has in view no such extensive utility; the propensity to truck, barter, and exchange one thing for another.

Whether this propensity be one of those original principles in human nature, of which no further account can be given; or whether, as seems more probable, it be the necessary consequence of the faculties of reason and speech, it belongs not to our present subject to enquire. It is common to all men, and to be found in no other race of animals, which seem to know neither this nor any other species of contracts. Two greyhounds, in running down the same hare, have sometimes the appearance of acting in some sort of concert. Each turns her towards his companion, or endeavours to intercept her when his companion turns her towards himself. This, however, is not the effect of any contract, but of the accidental concurrence of their passions in the same object at that particular time. Nobody ever saw a dog make a fair and deliberate exchange of one bone for another with another dog. Nobody ever saw one animal by its gestures and natural cries signify to another, this is mine, that yours; I am willing to give this for that . . .

In almost every other race of animals each individual, when it is grown up to maturity, is entirely independent, and in its natural state has occasion for the assistance of no other living creature. But man has almost constant occasion for the help of his brethren, and it is in vain for him to expect it from their benevolence only. He will be more likely to prevail if he can interest their self-love in his favour, and shew them that it is for their own advantage to do for him what he requires of them. Whoever offers to another a bargain of any kind, proposes to do this. Give me that which I want, and you shall have this which you want, is the meaning of every such offer; and it is in this manner that we obtain from one another the far greater part of those good offices which we stand in need of. It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their advantages. Nobody but a beggar chuses to depend chiefly upon the benevolence of his fellow-citizens. Even a beggar does not depend upon it entirely. The charity of well-disposed people, indeed, supplies him with the whole fund of his

subsistence. But though this principle ultimately provides him with all the necessities of life which he has occasion for, it neither does nor can provide him with them as he has occasion for them. The greater part of his occasional wants are supplied in the same manner as those of other people, by treaty, by barter, and by purchase. With the money which one man gives him he purchases food. The old cloaths which another bestows upon him he exchanges for other old cloaths which suit him better, or for lodging, or for food, or for money, with which he can buy either food, cloaths, or lodging as he has occasion.

As it is by treaty, by barter, and by purchase, that we obtain from one another the greater part of those mutual good offices which we stand in need of, so it is this same trucking disposition which originally gives occasion to the division of labour. In a tribe of hunters or shepherds a particular person makes bows and arrows, for example, with more readiness and dexterity than any other. He frequently exchanges them for cattle or for venison with his companions; and he finds at last that he can in this manner get more cattle and venison, than if he himself went to the field to catch them. From a regard to his own interest, therefore, the making of bows and arrows grows to be his chief business, and he becomes a sort of armourer. Another excels in making the frames and covers of their little huts or moveable houses. He is accustomed to be of use in this way to his neighbours, who reward him in the same manner with cattle and with venison, till at last he finds it his interest to dedicate himself entirely to this employment, and to become a sort of house-carpenter. In the same manner a third becomes a smith or a brazier; a fourth a tanner or dresser of hides or skins, the principal part of the clothing of savages. And thus the certainty of being able to exchange all that surplus part of the produce of his own labour, which is over and above his own consumption, for such parts of the produce of other men's labour as he may have occasion for, encourages every man to apply himself to a particular occupation, and to cultivate and bring to perfection whatever talent or genius he may possess for that particular species of business.

The difference of natural talents in different men is, in reality, much less than we are aware of; and the very different genius which appears to distinguish men of different professions, when grown up to maturity, is not upon many occasions so much the cause, as the

effect of the division of labour. The difference between the most dissimilar characters, between a philosopher and a common street porter, for example, seems to arise not so much from nature, as from habit, custom, and education. When they came into the world, and for the first six or eight years of their existence, they were, perhaps, very much alike, and neither their parents nor play-fellows could perceive any remarkable difference. About that age, or soon after, they come to be employed in very different occupations. The difference of talents comes then to be taken notice of, and widens by degrees, till at last the vanity of the philosopher is willing to acknowledge scarce any resemblance. But without the disposition to truck, barter, and exchange, every man must have procured to himself every necessary and conveniency of life which he wanted. All must have had the same duties to perform, and the same work to do, and there could have been no such difference of employment as could alone give occasion to any great difference of talents.

As it is this disposition which forms that difference of talents, so remarkable among men of different professions, so it is this same disposition which renders that difference useful. Many tribes of animals acknowledged to be all of the same species, derive from nature a much more remarkable distinction of genius, than what, antecedent to custom and education, appears to take place among men. By nature a philosopher is not in genius and disposition half so different from a street porter, as a mastiff is from a greyhound, or a greyhound from a spaniel, or this last from a shepherd's dog. Those different tribes of animals, however, though all of the same species, are of scarce any use to one another. The strength of the mastiff is not in the least supported either by the swiftness of the greyhound, or by the sagacity of the spaniel, or by the docility of the shepherd's dog. The effects of those different geniuses and talents, for want of the power or disposition to barter and exchange, cannot be brought into a common stock, and do not in the least contribute to the better accommodation and conveniency of the species. Each animal is still obliged to support and defend itself, separately and independently, and derives no sort of advantage from that variety of talents with which nature has distinguished its fellows. Among men, on the contrary, the most dissimilar geniuses are of use to one another; the different produces of their respective talents, by the general disposition to truck, barter, and exchange, being brought,

as it were, into a common stock, where every man may purchase whatever part of the produce of other men's talents he has occasion for.

THE LIMITS OF SPECIALIZATION¹

ADAM SMITH²

Adam Smith here argues that the extent of specialization is limited by the size of the market in which goods or services are exchanged.

As it is the power of exchanging that gives occasion to the division of labour, so the extent of this division must always be limited by the extent of that power, or, in other words, by the extent of the market. When the market is very small, no person can have any encouragement to dedicate himself entirely to one employment, for want of the power to exchange all that surplus part of the produce of his own labour, which is over and above his own consumption, for such parts of the produce of other men's labour as he has occasion for.

There are some sorts of industry, even of the lowest kind, which can be carried on no where but in a great town. A porter, for example, can find employment and subsistence in no other place. A village is by much too narrow a sphere for him; even an ordinary market town is scarce large enough to afford him constant occupation. In the lone houses and very small villages which are scattered about in so desert a country as the Highlands of Scotland, every farmer must be butcher, baker and brewer for his own family. In such situations we can scarce expect to find even a smith, a carpenter, or a mason, within less than twenty miles of another of the same trade. The scattered families that live at eight or ten miles distance from the nearest of them, must learn to perform themselves a great number of little pieces of work, for which, in more populous

¹ This selection is reprinted from Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776, Book I, Chapter 3.

² Adam Smith (1723-1790) was sometime professor of logic and later moral philosophy in the University of Glasgow, and finally commissioner of customs at Edinburgh. He is regarded as the founder of the Classical school of economics.

countries, they would call in the assistance of those workmen. Country workmen are almost every where obliged to apply themselves to all the different branches of industry that have so much affinity to one another as to be employed about the same sort of materials. A country carpenter deals in every sort of work that is made of wood: a country smith in every sort of work that is made of iron. The former is not only a carpenter, but a joiner, a cabinet maker, and even a carver in wood, as well as a wheelwright, a ploughwright, a cart and waggon maker. The employments of the latter are still more various. It is impossible there should be such a trade as even that of a nailer in the remote and inland parts of the Highlands of Scotland. Such a workman at the rate of a thousand nails a day, and three hundred working days in the year, will make three hundred thousand nails in the year. But in such a situation it would be impossible to dispose of one thousand, that is, of one day's work in the year.

As by means of water-carriage a more extensive market is opened to every sort of industry than what land-carriage alone can afford it, so it is upon the sea-coast, and along the banks of navigable rivers, that industry of every kind naturally begins to subdivide and improve itself, and it is frequently not till a long time after that those improvements extend themselves to the inland parts of the country. A broad-wheeled waggon, attended by two men, and drawn by eight horses, in about six weeks time carries and brings back between London and Edinburgh near four ton weight of goods. In about the same time a ship navigated by six or eight men, and sailing between the ports of London and Leith, frequently carries and brings back two hundred ton weight of goods. Six or eight men, therefore, by the help of water-carriage, can carry and bring back in the same time the same quantity of goods between London and Edinburgh, as fifty broad-wheeled waggons, attended by a hundred men, and drawn by four hundred horses. Upon two hundred tons of goods, therefore, carried by the cheapest land-carriage from London to Edinburgh, there must be charged the maintenance of a hundred men for three weeks, and both the maintenance, and, what is nearly equal to the maintenance, the wear and tear of four hundred horses as well as of fifty great waggons. Whereas, upon the same quantity of goods carried by water, there is to be charged only the maintenance of six or eight men, and the wear and tear of a ship of two hundred tons burthen, together with the value of the

superior risk, or the difference of the insurance between land and water-carriage. Were there no other communication between those two places, therefore, but by land-carriage, as no goods could be transported from the one to the other, except such whose price was very considerable in proportion to their weight, they could carry on but a small part of that commerce which at present subsists between them, and consequently could give but a small part of that encouragement which they at present mutually afford to each other's industry. There could be little or no commerce of any kind between the distant parts of the world. What goods could bear the expence of land-carriage between London and Calcutta? Or if there were any so precious as to be able to support this expence, with what safety could they be transported through the territories of so many barbarous nations? Those two cities however, at present carry on a very considerable commerce with each other, and by mutually affording a market, give a good deal of encouragement to each other's industry.

Since such, therefore, are the advantages of water-carriage, it is natural that the first improvements of art and industry should be made where this conveniency opens the whole world for a market to the produce of every sort of labour, and that they should always be much later in extending themselves into the inland parts of the country. The inland parts of the country can for a long time have no other market for the greater part of their goods, but the country which lies round about them, and separates them from the sea-coast, and the great navigable rivers. The extent of their market, therefore, must for a long time be in proportion to the riches and populousness of that country, and consequently their improvement must always be posterior to the improvement of that country.

CHAPTER 3

Regional Specialization

ADVANTAGES OF REGIONAL SPECIALIZATION¹

ADAM SMITH²

In this classic passage Adam Smith presents the advantages of regional specialization on a world-wide scale and argues for the establishment of free trade on the basis of comparative costs.

It is the maxim of every prudent master of a family, never to attempt to make at home what it will cost him more to make than to buy. The taylor does not attempt to make his own shoes, but buys them of the shoemaker. The shoemaker does not attempt to make his own clothes, but employs a taylor. The farmer attempts to make neither the one nor the other, but employs those different artificers. All of them find it for their interest to employ their whole industry in a way in which they have some advantage over their neighbours, and to purchase with a part of its produce, or what is the same thing, with the price of a part of it, whatever else they have occasion for.

What is prudence in the conduct of every private family, can scarce be folly in that of a great kingdom. If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage. The general industry of the country, being always in proportion to the capital which employs it, will not thereby be diminished, no more than that of the above-mentioned artificers; but only left to find out the way in which it can be employed with the greatest

¹ This selection is reprinted from Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776, Book IV, Chapter 2.

² Adam Smith (1723–1790) was sometime professor of logic and later moral philosophy in the University of Glasgow, and finally commissioner of customs at Edinburgh. He is regarded as the founder of the Classical school of economics.

advantage. It is certainly not employed to the greatest advantage, when it is thus directed towards an object which it can buy cheaper than it can make. The value of its annual produce is certainly more or less diminished, when it is thus turned away from producing commodities evidently of more value than the commodity which it is directed to produce. According to the supposition, that commodity could be purchased from foreign countries cheaper than it can be made at home. It could, therefore, have been purchased with a part only of the commodities, or, what is the same thing, with a part only of the price of the commodities, which the industry employed by an equal capital would have produced at home, had it been left to follow its natural course. The industry of the country, therefore, is thus turned away from a more, to a less advantageous employment, and the exchangeable value of its annual produce, instead of being increased, according to the intention of the law-giver, must necessarily be diminished by every such regulation. . . .

The natural advantages which one country has over another in producing particular commodities are sometimes so great, that it is acknowledged by all the world to be in vain to struggle with them. By means of glasses, hotbeds, and hotwalls, very good grapes can be raised in Scotland, and very good wine too can be made of them at about thirty times the expence for which at least equally good can be brought from foreign countries. Would it be a reasonable law to prohibit the importation of all foreign wines, merely to encourage the making of claret and burgundy in Scotland? But if there would be a manifest absurdity in turning towards any employment, thirty times more of the capital and industry of the country, than would be necessary to purchase from foreign countries an equal quantity of the commodities wanted, there must be an absurdity, though not altogether so glaring, yet exactly of the same kind, in turning towards any such employment a thirtieth, or even a three hundredth part more of either. Whether the advantages which one country has over another, be natural or acquired, is in this respect of no consequence. As long as the one country has those advantages, and the other wants them, it will always be more advantageous for the latter, rather to buy of the former than to make. It is an acquired advantage only, which one artificer has over his neighbour, who exercises another trade; and yet they both find it more advantageous to buy of one another, than to make what does not belong to their particular trades. . . .

There seem, however, to be two cases in which it will generally be advantageous to lay some burden upon foreign, for the encouragement of domestic industry.

The first is, when some particular sort of industry is necessary for the defence of the country. The defence of Great Britain, for example, depends very much upon the number of its sailors and shipping. The act of navigation, therefore, very properly endeavours to give the sailors and shipping of Great Britain the monopoly of the trade of their own country, in some cases, by absolute prohibitions, and in others by heavy burdens upon the shipping of foreign countries. . . .

The act of navigation is not favourable to foreign commerce, or to the growth of that opulence which can arise from it. The interest of a nation in its commercial relations to foreign nations is, like that of a merchant with regard to the different people with whom he deals, to buy as cheap and to sell as dear as possible. But it will be most likely to buy cheap, when by the most perfect freedom of trade it encourages all nations to bring to it the goods which it has occasion to purchase; and, for the same reason, it will be most likely to sell dear, when its markets are thus filled with the greatest number of buyers. The act of navigation, it is true, lays no burden upon foreign ships that come to export the produce of British industry. . . . But if foreigners, either by prohibitions or high duties, are hindered from coming to sell, they cannot always afford to come to buy; because coming without a cargo, they must lose the freight from their own country to Great Britain. By diminishing the number of sellers, therefore, we necessarily diminish that of buyers, and are thus likely not only to buy foreign goods dearer, but to sell our own cheaper, than if there was a more perfect freedom of trade. As defence, however, is of much more importance than opulence, the act of navigation is, perhaps, the wisest of all the commercial regulations of England.

The second case, in which it will generally be advantageous to lay some burden upon foreign for the encouragement of domestic industry, is, when some tax is imposed at home upon the produce of the latter. In this case, it seems reasonable that an equal tax should be imposed upon the like produce of the former. This would not give the monopoly of the home market to domestic industry, nor turn towards a particular employment a greater share of the stock and labour of the country, than what would naturally go to it.

It would only hinder any part of what would naturally go to it from being turned away by the tax, into a less natural direction, and would leave the competition between foreign and domestic industry, after the tax, as nearly as possible upon the same footing as before it.

INTERFERENCE WITH REGIONAL SPECIALIZATION¹

ADAM SMITH²

Adam Smith here assails various devices for interfering with regional specialization and free trade, arguing that the interest of consumers is thereby sacrificed to that of producers.

Consumption is the sole end and purpose of all production; and the interest of the producer ought to be attended to, only so far as it may be necessary for promoting that of the consumer. The maxim is so perfectly self-evident, that it would be absurd to attempt to prove it. But in the mercantile system, the interest of the consumer is almost constantly sacrificed to that of the producer; and it seems to consider production, and not consumption, as the ultimate end and object of all industry and commerce.

In the restraints upon the importation of all foreign commodities which can come into competition with those of our own growth, or manufacture, the interest of the home-consumer is evidently sacrificed to that of the producer. It is altogether for the benefit of the latter, that the former is obliged to pay that enhancement of price which this monopoly almost always occasions.

It is altogether for the benefit of the producer that bounties are granted upon the exportation of some of his productions. The home-consumer is obliged to pay, first, the tax which is necessary for paying the bounty, and secondly, the still greater tax which

¹ This selection is reprinted from Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776, Book IV, Chapter 8 and Chapter 2.

² Adam Smith (1723-1790) was sometime professor of logic and later moral philosophy in the University of Glasgow, and finally commissioner of customs at Edinburgh. He is regarded as the founder of the Classical school of economics.

necessarily arises from the enhancement of the price of the commodity in the home market.

By the famous treaty of commerce with Portugal,¹ the consumer is prevented by high duties from purchasing of a neighbouring country, a commodity which our own climate does not produce, but is obliged to purchase it of a distant country, though it is acknowledged, that the commodity of the distant country is of a worse quality than that of the near one. The home-consumer is obliged to submit to this inconveniency, in order that the producer may import into the distant country some of his productions upon more advantageous terms than he would otherwise have been allowed to do. The consumer, too, is obliged to pay, whatever enhancement in the price of those very productions, this forced exportation may occasion in the home market.

But in the system of laws which has been established for the management of our American and West Indian colonies, the interest of the home-consumer has been sacrificed to that of the producer with a more extravagant profusion than in all our other commercial regulations. A great empire has been established for the sole purpose of raising up a nation of customers who should be obliged to buy from the shops of our different producers, all the goods with which these could supply them. For the sake of that little enhancement of price which this monopoly might afford our producers, the home-consumers have been burdened with the whole expence of maintaining and defending that empire. For this purpose, and for this purpose only, in the two last wars, more than two hundred millions have been spent, and a new debt of more than a hundred and seventy millions has been contracted over and above all that had been expended for the same purpose in former wars. The interest of this debt alone is not only greater than the whole extraordinary profit, which, it ever could be pretended, was made by the monopoly of the colony trade, but than the whole value of that trade, or than the whole value of the goods, which at an average have been annually exported to the colonies.

It cannot be very difficult to determine who have been the contrivers of this whole mercantile system; not the consumers, we may believe, whose interest has been entirely neglected; but the producers, whose interest has been so carefully attended to; and among this latter class our merchants and manufacturers have been by far

¹ Methuen Treaty of 1703.

the principal architects. In the mercantile regulations, which have been taken notice of in this chapter, the interest of our manufacturers has been most peculiarly attended to; and the interest not so much of the consumers, as that of some other sets of producers, has been sacrificed to it. . . .

To expect that the freedom of trade should ever be entirely restored in Great Britain, is as absurd as to expect that an Oceana or Utopia should ever be established in it. Not only the prejudices of the public, but what is much more unconquerable, the private interests of many individuals, irresistibly oppose it. Were the officers of the army to oppose with the same zeal and unanimity any reduction in the number of forces, with which master manufacturers set themselves against every law that is likely to increase the number of their rivals in the home market; were the former to animate their soldiers, in the same manner as the latter enflame their workmen, to attack with violence and outrage the proposers of any such regulation; to attempt to reduce the army would be as dangerous as it has now become to attempt to diminish in any respect the monopoly which our manufacturers have obtained against us. This monopoly has so much increased the number of some particular tribes of them, that, like an overgrown standing army, they have become formidable to the government, and upon many occasions intimidate the legislature. The member of parliament who supports every proposal for strengthening this monopoly, is sure to acquire not only the reputation of understanding trade, but great popularity and influence with an order of men whose numbers and wealth render them of great importance. If he opposes them, on the contrary, and still more if he has authority enough to be able to thwart them, neither the most acknowledged probity, nor the highest rank, nor the greatest public services, can protect him from the most infamous abuse and detraction, from personal insults, nor sometimes from real danger, arising from the insolent outrage of furious and disappointed monopolists.

The undertaker of a great manufacture, who, by the home markets being suddenly laid open to the competition of foreigners, should be obliged to abandon his trade, would no doubt suffer very considerably. That part of his capital which had usually been employed in purchasing materials and in paying his workmen, might, without much difficulty, perhaps, find another employment. But that part of it which was fixed in workhouses, and in the instruments

of trade, could scarce be disposed of without considerable loss. The equitable regard, therefore, to his interest requires that changes of this kind should never be introduced suddenly, but slowly, gradually, and after a very long warning. The legislature, were it possible that its deliberations could be always directed, not by the clamorous importunity of partial interests, but by an extensive view of the general good, ought upon this very account, perhaps, to be particularly careful neither to establish any new monopolies of this kind, nor to extend further those which are already established. Every such regulation introduces some degree of real disorder into the constitution of the state, which it will be difficult afterwards to cure without occasioning another disorder.

SECTION III

Production: Technology and Economic Institutions

ECONOMIC CHANGE OR DEVELOPMENT ESSENTIALLY involves two factors: (1) an evolution in the techniques of production—the engineering processes; and (2) a transformation in the pattern of economic institutions—the accepted ways and means of doing business. During the last hundred years, the technology of production has changed considerably so that, what was once manufacture in the true sense of the word, “hand-facture,” has now become what would logically be called “machine-facture.” The advent of the machine has brought in its wake a whole legion of problems: the problems of invention, design, assembly, and precision fitting of interchangeable parts. But it has done much more than that: it has transformed the whole method of production; it has deprived production of its essentially individual nature and rendered it a social process; it has had far-reaching consequences in affecting our economic ideas and methods of doing business; it has encouraged the growth of large-scale plants, mass production industries and the corporate and super-corporate forms of business organization. It is over the interpretation of these changes, initiated by the machine technology and the factory system, that some of the more outstanding controversies have been and are being carried on.

“What does it all mean?” is a question most frequently raised. Has the machine been a blessing or a curse? Has the larger output of physical goods and services, supported by the use of machinery, been capable of offsetting the moral degradation and spiritual degeneration suffered by the operators of uncontrolled mechanical monsters? Are the materialistic values, justifications and habits of thought enforced by machine technology a desirable trend in social and economic development? Has the machine robbed men of their jobs or has it tended to increase the level of aggregate employment? And, perhaps most important of all, has the introduction of machinery so basically changed the process of production that a whole new framework of institutions—a new system of economics and government—is required to cope with the problems raised?

Some of the most bitterly fought battles center around the legitimate size of business organizations. What is the real meaning of size? When we speak of "optimum" or best size, do we mean technologically adequate or financially most advantageous? From a technological point of view, how large—in terms of dollar assets—should a business concern be allowed to become? Will mergers and giant combinations insure a more efficient use of resources or will they merely serve to perpetuate inefficient methods of production? Will the growth of big business result in a larger volume of inventions and innovations or will the incentive necessary for invention and innovation be crushed by the "red tape" of cumbersome and unwieldy administrative units? And, finally, will the consumer be more likely to get the advantages from greater technological efficiency if the means of production are in private or public hands?

These and other problems are raised by the tremendous social and economic forces initiated by the Industrial Revolution. In 1848 the spectre of Communism was haunting Europe—the spectre of a movement which would hardly have arisen had the Industrial Revolution never occurred. In 1948 the same spectre is haunting the world—an indication that some of the problems created by the introduction of machinery and the factory system and by the growth of industrial institutions have not yet found a solution.

CHAPTER 4

The Meaning of Technology

TECHNOLOGY AND ROUNDABOUT PRODUCTION ¹

E. V. BÖHM-BAWERK ²

Böhm-Bawerk here explains the difference between direct production and roundabout production, stressing the importance of technology and its role in the modern economy.

The end and aim of all production is the making of things with which to satisfy our wants; that is to say, the making of goods for immediate consumption, or Consumption Goods. The method of their production we have already looked at in a general way. We combine our own natural powers and natural powers of the external world in such a way that, under natural law, the desired material good must come into existence. But this is a very general description indeed of the matter, and looking at it closer there comes in sight an important distinction. It has reference to the distance which lies between the expenditure of human labour in the combined production and the appearance of the desired good. We either put forth our labour just before the goal is reached, or we, intentionally, take a roundabout way. That is to say, we may put forth our labour in such a way that it at once completes the circle of conditions necessary for the emergence of the desired good, and thus the existence of the good immediately follows the expenditure of the labour; or we may associate our labour first with the more remote causes of the good, with the object of obtaining, not the desired good itself, but approximate cause of the good, which cause, again, must be associated with other suitable materials and powers, till, finally—perhaps through a con-

¹ This selection is reprinted by kind permission of the publishers from Eugen von Böhm-Bawerk, *The Positive Theory of Capital*, New York: The Macmillan Co., 1891, Chapter II.

² Eugen von Böhm-Bawerk (1851–1914) was at one time professor of economics in the University of Vienna and Finance Minister of Austria.

siderable number of intermediate members—the finished good, the instrument of human satisfaction, is obtained.

The nature and importance of this distinction will be best seen from a few examples; and, as these will, to a considerable extent, form a demonstration of what is really one of the most fundamental propositions in our theory, I must risk being tedious.

A peasant requires drinking water. The spring is some distance from his house. There are various ways in which he may supply his daily wants. First, he may go to the spring each time he is thirsty, and drink out of his hollowed hand. This is the most direct way; satisfaction follows immediately on exertion. But it is an inconvenient way, for our peasant has to take his way to the well as often as he is thirsty. And it is an insufficient way, for he can never collect and store any great quantity such as he requires for various other purposes. Second, he may take a log of wood, hollow it out into a kind of pail, and carry his day's supply from the spring to his cottage. The advantage is obvious, but it necessitates a roundabout way of considerable length. The man must spend, perhaps, a day in cutting out the pail; before doing so he must have felled a tree in the forest; to do this, again, he must have made an axe, and so on. But there is still a third way; instead of felling one tree he fells a number of trees, splits and hollows them, lays them end for end, and so constructs a runnel or rhone which brings a full head of water to his cottage. Here, obviously, between the expenditure of the labour and the obtaining of the water we have a very roundabout way, but, then, the result is ever so much greater. Our peasant needs no longer take his weary way from house to well with the heavy pail on his shoulder, and yet he has a constant and full supply of the freshest water at his very door.

Another example. I require stone for building a house. There is a rich vein of excellent sandstone in a neighbouring hill. How is it to be obtained? First, I may work the loose stones back and forward with my bare fingers, and break off what can be broken off. This is the most direct, but also the least productive way. Second, I may take a piece of iron, make a hammer and chisel out of it, and use them on the hard stone—a roundabout way, which, of course, leads to a very much better result than the former. Third method—Having a hammer and chisel I use them to drill a hole in the rock; next I turn my attention to procuring charcoal, sulphur, and nitre, and mixing

them in a powder, then I pour the powder into the hole, and the explosion that follows splits the stone into convenient pieces—still more of a roundabout way, but one which, as experience shows, is as much superior to the second way in result as the second was to the first.

Yet another example. I am short-sighted, and wish to have a pair of spectacles. For this I require ground and polished glasses, and a steel framework. But all that nature offers towards that end is silicious earth and iron ore. How am I to transform these into spectacles? Work as I may, it is as impossible for me to make spectacles directly out of silicious earth as it would be to make the steel frames out of iron ore. Here there is no immediate or direct method of production. There is nothing for it but to take the roundabout way, and, indeed, a very roundabout way. I must take silicious earth and fuel, and build furnaces for smelting the glass from the silicious earth; the glass thus obtained has to be carefully purified, worked, and cooled by a series of processes; finally, the glass thus prepared—again by means of ingenious instruments carefully constructed beforehand—is ground and polished into the lens fit for short-sighted eyes. Similarly, I must smelt the ore in the blast furnace, change the raw iron into steel, and make the frame therefrom—processes which cannot be carried through without a long series of tools and buildings that, on their part again, require great amounts of previous labour. Thus, by an exceedingly roundabout way, the end is attained.

The lesson to be drawn from all these examples alike is obvious. It is that a greater result is obtained by producing goods in roundabout ways than by producing them directly. Where a good can be produced in either way, we have the fact that, by the indirect way, a greater product can be got with equal labour, or the same product with less labour. But, beyond this, the superiority of the indirect way manifests itself in being the only way in which certain goods can be obtained, if I might say so, it is so much the better that it is often the only way!

That roundabout methods lead to greater results than direct methods is one of the most important and fundamental propositions in the whole theory of production. It must be emphatically stated that the only basis of this proposition is the experience of practical life. Economic theory does not and cannot show *a priori* that it must be so; but the unanimous experience of all the technique of pro-

duction says that it is so. And this is sufficient; all the more that the facts of experience which tell us this are commonplace and familiar to everybody. But why is it so? The economist might quite well decline to answer this question. For the fact that a greater product is obtained by methods of production that begin far back is essentially a purely technical fact, and to explain questions of technique does not fall within the economist's sphere. . . . But this is exactly one of those cases where, in the economist's own interest—the interest he has in limiting and defining his own task—it is exceedingly desirable to go beyond the specific economic sphere. If the sober physical truth is once made clear, political economy cannot indulge in any fancies or fictions about it; and, in such questions, political economy has never been behind in the desire and the attempt to substitute its own imaginings! Although, then, this law is already sufficiently accredited by experience, I attach particular value to explaining its cause, and, after what has been said as to the nature of production, this should not be very difficult.

In the last resort all our productive efforts amount to shiftings and combinations of matter. We must know how to bring together the right forms of matter at the right moment, in order that from those associated forces the desired result, the product wanted, may follow. But, as we saw, the natural forms of matter are often so infinitely large, often so infinitely fine, that human hands are too weak or too coarse to control them. We are as powerless to overcome the cohesion of the wall of rock when we want building stone as we are, from carbon, nitrogen, hydrogen, oxygen, phosphor, potash, etc., to put together a single grain of wheat. But there are other powers which can easily do what is denied to us, and these are the powers of nature. There are natural powers which far exceed the possibilities of human power in greatness, and there are other natural powers in the microscopic world which can make combinations that put our clumsy fingers to shame. If we can succeed in making those forces our allies in the work of production, the limits of human possibility will be infinitely extended. And this we have done.

The condition of our success is, that we are able to control the materials on which the power that helps us depends, more easily than the materials which are to be transformed into the desired good. Happily this condition can be very often complied with. Our weak yielding hand cannot overcome the cohesion of the rock, but the

hard wedge of iron can; the wedge and the hammer to drive it we can happily master with little trouble. We cannot gather the atoms of phosphorus and potash out of the ground, and the atoms of carbon and oxygen out of the atmospheric air, and put them together in the shape of the corn or wheat; but the organic chemical powers of the seed can put this magical process in motion, while we on our part can very easily bury the seed in the place of its secret working, the bosom of the earth. Often, of course, we are not able directly to master the form of matter on which the friendly power depends, but in the same way as we would like it to help us, do we help ourselves against it; we try to secure the alliance of a second natural power which brings the form of matter that bears the first power under our control. We wish to bring the well water into the house. Wooden rhones would force it to obey our will, and take the path we prescribe, but our hands have not the power to make the forest trees into rhones. We have not far to look, however, for an expedient. We ask the help of a second ally in the axe and the gouge; their assistance gives us the rhones; then the rhones bring us the water. And what in this illustration is done through the mediation of two or three members may be done, with equal or greater result, through five, ten, or twenty members. Just as we control and guide the immediate matter of which the good is composed by one friendly power, and that power by a second, so can we control and guide the second by a third, the third by a fourth, this, again, by a fifth, and so on,—always going back to more remote causes of the final result—till in the series we come at last to one cause which we can control conveniently by our own natural powers. This is the true importance which attaches to our entering on roundabout ways of production, and this is the reason of the result associated with them: every roundabout way means the enlisting in our service of a power which is stronger or more cunning than the human hand; every extension of the roundabout way means an addition to the powers which enter into the service of man, and the shifting of some portion of the burden of production from the scarce and costly labour of human beings to the prodigal powers of nature.

And now we may put into words an idea which has long waited for expression, and must certainly have occurred to the reader; the kind of production which works in these wise circuitous methods is nothing else than what economists call Capitalist Production; as opposed to that production which goes directly at its object, as the

Germans say, "*mit der nackten Faust*." And Capital is nothing but the complex of intermediate products which appear on the several stages of the roundabout journey.

TECHNOLOGY AND ITS INSTITUTIONAL SETTING¹

DONALD W. MCCONNELL *et al.*²

Two basic ideas are presented here: (1) changes in technology fundamentally affect man's method of earning a living; and (2) technological invention, being a social process, is vitally influenced by prevailing social and economic institutions.

CHANGING TECHNOLOGY

For the early Greek trader the Aegean Sea was a wide body of turbulent water, forbidding and hazardous. Traders hugged the shore line or kept close to the islands with which the sea was sown. To cross from the mainland of Asia Minor was a great undertaking. Today, crossing the Aegean is a trivial matter of a few hours' time. Even the Atlantic and Pacific Oceans are today smaller bodies of water, when defined technologically, than the Aegean Sea in the time of the early Greeks. This change in the hazards of the Aegean Sea is a function of the changing arts of navigation and the changing technique of marine engineering.

The colonization of the western half of the United States was embittered by a hazardous passage over a desert area known as Death Valley. Here many caravans perished for lack of water. Today, it is traversed in a few minutes by airplane, or in a few hours by train. Its desolate discomfort has become a picturesque tradition. The hot, dry valleys of Southern California once maintained a sparse population. Today, they hold crowded cities, populous towns, and prosperous farmers tilling fertile soil. Modern engineering has made it

¹ This selection is reprinted by kind permission of the publishers from Donald W. McConnell, *et al.*, *Economic Behavior*, Boston: Houghton Mifflin Company, Revised Edition, 1939, pages 12-16.

² The authors of this selection are members of the Department of Economics, Washington Square College, New York University.

possible to build huge dams to store up mountain waters in artificial lakes, and pipe-lines to carry this water great distances. The deserts of Southern California are fertile because of the mechanics of irrigation.

Areas, once too dry and hot, or too marshy and wet, or too cold, are now populous and highly productive. Places once too distant to be drawn into the economic life of Western society now are the source of daily necessities. Clearly, the earth's surface as a geographer sees it gives no indication of the economic resistance imposed upon man by the contour of the earth, by the extent of space, or by the nature of the climate. These resistances are primarily defined by the industrial arts: by the knowledge man has of the properties of matter, by the instruments with which he manipulates matter, by the skill with which he applies his effort and his knowledge.

CHANGING TECHNOLOGY AND CHANGING RESOURCES

If we were to draw up a list of the natural resources of the American Indians, we should probably include the following items: streams of water, birch bark and saplings, bison, deer, squirrels, and other animals, fish and birds, flint and other stones, clay, and so on. If we were to draw up a list of the natural resources of the United States, we should include in a long list such items as coal, iron, oil, copper, gold, waterfalls, areas of tillable soil.

Obviously, the difference in the two lists of natural resources does not lie in the character of the physical universe. It is rather a difference in the behavior of the American Indian and of the present-day American. The Indian carried on his productive activity by means of a few simple tools: the bow and arrow, the hatchet, the stone-headed hammer, the bark canoe, and the sun-dried hide. A modern American organizes his productive activities by the use of massive and intricate mechanical contrivances: steam engines, electric dynamos, internal combustion engines; materials of iron and steel, and other metal; he utilizes a vast assortment of chemicals which he applies according to formulas arrived at through laboratory investigations and experiments; he has learned the habits of measuring mass and motion by scales which reduce them to mathematical quantities.

To us, in consequence, the deposits of coal in the Allegheny Mountains are a rich store of fuel and chemicals; to the Indians and the early whites they were merely a part of the meaningless underground. The hunting-grounds of Indians were the buffalo ranges;

our hunting-grounds are the beds of coal and iron and the underground lakes of oil. To the Indians, buffalo were a valuable source of food worth fighting for; to us they are curiosities in a zoo.

THE SOCIAL NATURE OF INVENTION

What metals are workable, what soils are tillable, what climatic regions are habitable are determined by the habits of the human beings who work. These habits are neither attributes of the organic structure of man nor properties of the physical environment. They are a body of conventions, learned and passed on from generation to generation as part of the technical heritage of the group. In no connection is this more clearly seen than in the case of inventions.

The inventor himself is a member of a going society. The inventor draws upon the accumulated knowledge that his generation of technically minded individuals have inherited from the past. He rearranges and assembles in a slightly new pattern the tools, the machines, the devices, the knowledge, which are already in operation. To this he adds his minute variation. His originality may be striking when compared with the achievements of his contemporaries, but when placed in the perspective of accumulations from the past, the modifications for which he is responsible are slight in their scope. It may only be after a long period of time that a particular variation in the technological pattern ascribed to some inventor assumes upon retrospection a dramatic significance. It is also a common occurrence that several inventors with no direct personal contact discover the same thing at approximately the same time.

The motives which prompt the inventor to action are essentially social in nature. The rewards which are sufficient to move him to expend the energy and patience which are required to carry on his work are prescribed by the social pattern in which he lives. The rewards which society holds for the inventor control the directions in which his inventive energy is applied. In a military society, the inventors are servants of the warriors. In a society dominated by religious rites and ceremonials, inventors multiply the intricacies of religious ritual. In our society, a money-making society, they are largely the servants of business men.

In other words, the very existence of the inventive process, its character and its purposes, are subject to the canons laid down by the social order. The need for invention is a social phenomenon; the question of what shall be invented is defined by the needs of society

as a going concern. The inventor and the scientist draw for their basic assumptions upon ideas which exist in the world about them. Over a long period of time, therefore, the pattern of invention, like the pattern of consumption, is composed of small additions to and modifications of a preexisting body of ideas.

In the not very remote past technological inventions were destroyed and inventors punished for being in "league with the Devil." In a less remote period machines were broken and riots ensued because of the disturbing effect of new techniques on the established modes of living. The history of invention is a history of conflict between an established order and a force-making change. As a result, the direction in which the inventive process proceeds, what inventions are encouraged or suppressed, whether inventors are rewarded or punished, were and are largely determined by the amounts and kinds of social resistance which inventions arouse.

The technological pattern, therefore, is to be understood as a part of a going society. It is conditioned by the complex of the many social factors which make up the society and is so inextricably tied up with them that both its form and scope can be viewed in no other light than as a composite of human complexes and conditions. The prestige and odium attached to various occupations condition and modify the operations of the technological pattern; determine who and how many become active in carrying on the technological processes. Society in which war plays a dominating part may automatically develop a crop of soldiers and not inventors. But if war is carried on through the medium of the industrial process, inventions can be made to serve military objectives. In our society, money-making interests and objectives share with the warlike political state their control and dominance over technology.

TECHNOLOGY AND ITS SIGNIFICANCE¹THORSTEIN B. VEBLEN²

Veblen here discusses the scope of the machine process, describing it as larger than technology itself. He emphasizes the endless sequence and interdependence of the machine process, concluding that standardization and uniformity reach far beyond the machine itself.

In its bearing on modern life and modern business, the "machine process" means something more comprehensive and less external than a mere aggregate of mechanical appliances for the mediation of human labor. It means that, but it means something more than that. The civil engineer, the mechanical engineer, the navigator, the mining expert, the industrial chemist and mineralogist, the electrician,—the work of all these falls within the lines of the modern machine process, as well as the work of the inventor who devises the appliances of the process and that of the mechanic who puts the inventions into effect and oversees their working. The scope of the process is larger than the machine . . .

No one of the mechanical processes carried on by the use of a given outfit of appliances is independent of other processes going on elsewhere. Each draws upon and presupposes the proper working of many other processes of a similarly mechanical character. None of the processes in the mechanical industries is self-sufficing. Each follows some and precedes other processes in an endless sequence, into which each fits and to the requirements of which each must adapt its own working. The whole concert of industrial operations is to be taken as a machine process, made up of interlocking detail processes, rather than as a multiplicity of mechanical appliances each doing its particular work in severalty. This comprehensive industrial process draws into its scope and turns to account all branches of knowledge

¹ This selection is reprinted by kind permission of the publishers from Thorstein Veblen, *The Theory of Business Enterprise*, New York: Charles Scribner's Sons, 1904, pages 5, 7-15.

² Thorstein Bunde Veblen (1857-1929) was sometime professor of economics in the University of Chicago, Stanford University, University of Missouri, and the New York School for Social Research; he is generally recognized as the founder of the Institutional school of economics.

that have to do with the material sciences, and the whole makes a more or less delicately balanced complex of sub-processes.

Looked at in this way the industrial process shows too well-marked general characteristics: (*a*) the running maintenance of interstitial adjustments between the several sub-processes or branches of industry, wherever in their working they touch one another in the sequence of industrial elaboration; and (*b*) an unremitting requirement of quantitative precision, accuracy in point of time and sequence, in the proper inclusion and exclusion of forces affecting the outcome, in the magnitude of the various physical characteristics (weight, size, density, hardness, tensile strength, elasticity, temperature, chemical reaction, actinic sensitiveness, etc.) of the materials handled as well as of the appliances employed. This requirement of mechanical accuracy and nice adaptation to specific uses has led to a gradual pervading enforcement of uniformity, to a reduction to staple grades and staple character in the materials handled, and to a thorough standardizing of tools and units of measurement. Standard physical measurements are of the essence of the machine's regime.

The modern industrial communities show an unprecedented uniformity and precise equivalence in legally adopted weights and measures. Something of this kind would be brought about by the needs of commerce, even without the urgency given to the movement for uniformity by the requirements of the machine industry. But within the industrial field the movement for standardization has outrun the urging of commercial needs, and has penetrated every corner of the mechanical industries. The specifically commercial need of uniformity in weights and measures of merchantable goods and in monetary units has not carried standardization in these items to the extent to which the mechanical need of the industrial process has carried out a sweeping standardization in the means by which the machine process works, as well as in the products which it turns out.

As a matter of course, tools and the various structural materials used are made of standard sizes, shapes, and gauges. When the dimensions, in fractions of an inch or in millimetres, and the weight, in fractions of a pound or in grammes, are given, the expert foreman or workman, confidently and without reflection, infers the rest of what need be known of the uses to which any given item that passes under his hand may be turned. The adjustment and adaptation of part to part and of process to process has passed out of the category of craftsmanlike skill into the category of mechanical standardization.

Hence, perhaps, the greatest, most wide-reaching gain in productive celerity and efficiency through modern methods, and hence the largest saving of labor in modern industry.

Tools, mechanical appliances and movements, and structural materials are scheduled by certain conventional scales and gauges; and modern industry has little use for, and can make little use of, what does not conform to the standard. What is not competently standardized calls for too much of craftsmanlike skill, reflection, and individual elaboration, and is therefore not available for economical use in the processes. Irregularity, departure from standard measurements in any of the measurable facts, is of itself a fault in any item that is to find a use in the industrial process, for it brings delay, it detracts from its ready usability in the nicely adjusted process into which it is to go; and a delay at any point means a more or less far-reaching and intolerable retardation of the comprehensive industrial process at large. Irregularity in products intended for industrial use carries a penalty to the nonconforming producer which urges him to fall into line and submit to the required standardization.

The materials and moving forces of industry are undergoing a like reduction to staple kinds, styles, grades, and gauge. Even such forces as would seem at first sight not to lend themselves to standardization, either in their production or their use, are subjected to uniform scales of measurement; as, *e.g.*, water-power, steam, electricity, and human labor. The latter is perhaps the least amenable to standardization, but, for all that, it is bargained for, delivered, and turned to account on schedules of time, speed, and intensity which are continually sought to be reduced to a more precise measurement and a more sweeping uniformity.

The like is true of the finished products. Modern consumers in great part supply their wants with commodities that conform to certain staple specifications of size, weight, and grade. The consumer (that is to say the vulgar consumer) furnishes his house, his table, and his person with supplies of standard weight and measure, and he can to an appreciable degree specify his needs and his consumption in the notation of the standard gauge. As regards the mass of civilized mankind, the idiosyncrasies of the individual consumers are required to conform to the uniform gradations imposed upon consumable goods by the comprehensive mechanical processes of industry. "Local color," it is said, is falling into abeyance in modern life, and where it is still found it tends to assert itself in units of the standard gauge.

From this mechanical standardization of consumable goods it follows, on the one hand, that the demand for goods settles upon certain defined lines of production which handle certain materials of definite grade, in certain, somewhat invariable forms and proportions; which leads to well-defined methods and measurements in the processes of production, shortening the average period of "ripening" that intervenes between the first raw stage of the product and its finished shape, and reducing the aggregate stock of goods necessary to be carried for the supply of current wants, whether in the raw or in the finished form. Standardization means economy at nearly all points of the process of supplying goods, and at the same time it means certainty and expedition at nearly all points in the business operations involved in meeting current wants. Besides this, the standardization of goods means that the interdependence of industrial processes is reduced to more definite terms than before the mechanical standardization came to its present degree of elaborateness and rigor. The margin of admissible variation, in time, place, form, and amount, is narrowed. Materials, to answer the needs of standardized industry, must be drawn from certain standard sources at a definite rate of supply. Hence any given detail industry depends closely on receiving its supplies from certain, relatively few, industrial establishments whose work belongs earlier in the process of elaboration. And it may similarly depend on certain other . . . industrial establishments for a vent of its own specialized and standardized product. It may likewise depend in a strict manner on special means of transportation.

Machine production leads to a standardization of services as well as of goods. So, for instance, the modern means of communication and the system into which these means are organized are also of the nature of a mechanical process, and in this mechanical process of service and intercourse the life of all civilized men is more or less intimately involved. To make effective use of the modern system of communication in any or all of its ramifications (streets, railways, steamship lines, telephone, telegraph, postal service, etc.), men are required to adapt their needs and their motions to the exigencies of the process whereby this civilized method of intercourse is carried into effect. The service is standardized, and therefore the use of it is standardized also. Schedules of time, place, and circumstance rule throughout. The scheme of everyday life must be arranged with a strict regard to the exigencies of the process whereby this range of

human needs is served, if full advantage is to be taken of this system of intercourse, which means that, in so far, one's plans and projects must be conceived and worked out in terms of those standard units which the system imposes.

For the population of the towns and cities, at least, much the same rule holds true of the distribution of consumable goods. So, also, amusements and diversions, much of the current amenities of life, are organized into a more or less sweeping process to which those who would benefit by the advantages offered must adapt their schedule of wants and the disposition of their time and effort. The frequency, duration, intensity, grade, and sequence are not, in the main, matters for the free discretion of the individuals who participate. Throughout the scheme of life of that portion of mankind that clusters about the centres of modern culture the industrial process makes itself felt and enforces a degree of conformity to the canon of accurate quantitative measurement. There comes to prevail a degree of standardization and precise mechanical adjustment of the details of everyday life, which presumes a facile and unbroken working of all those processes that minister to these standardized human wants.

As a result of this superinduced mechanical regularity of life, the livelihood of individuals is, over large areas, affected in an approximately uniform manner by any incident which at all seriously affects the industrial process at any point. . . .

CHAPTER 5

The Machine: Its Social and Economic Effects

THE MACHINE: A MIXED BLESSING¹

STUART CHASE²

Stuart Chase here argues that the evil effects of the machine are not due to the fact of mechanization, but rather to the manner in which it has been used. "Gasoline," he says, "is a good thing, but not when used to light the kitchen stove."

EFFECTS MANIFESTLY GOOD

The life-span of modern peoples has grown longer. The average expectancy of life has increased a third in the past two generations due to medical and mechanical controls.

Higher living standards have been secured for a larger percentage of the total population than has ever before obtained. (But Peru, under the Incas, and various nature peoples located in regions of abundant food supply have, with fewer material things, probably been more comfortable.)

The shrinkage of space brought about by machinery is demonstrating more forcibly every day the essential social and economic unity of the world. It is inviting an era of international cooperation. While the logic is inevitable, the acceptance thereof is still reasonably remote.

Class distinctions founded upon land ownership and patents of nobility are gradually disintegrating, while a levelling process in respect to prestige is going on between all classes.

Hours of labour have decreased in recent years. We still work harder and longer than have many former societies with a hundred

¹ This selection is reprinted by the kind permission of the publishers from Stuart Chase, *Men and Machines*, New York: The Macmillan Company, 1929, pages 319-330.

² Stuart Chase (1888-) is a noted author of many works on economics such as *The Tragedy of Waste*; *Your Money's Worth*; *Rich Land, Poor Land*; *Where's the Money Coming From?*

holidays or so a year, but if the machine were permitted to function as a true labour-saving device, we could undoubtedly do better in this respect than was ever done before. The curse of Adam has not been appreciably lifted, but it could be.

Superstition is declining. The wayfaring man is somewhat readier to ask: "What makes this thing act the way it does?" rather than falling on his face before unknowable mysteries. He has a more causative philosophy than previous wayfaring men—which does not prevent him from manifesting quite superior idiocy in other directions.

Certain machines, particularly the automobile, have tended to expand the ego, promote self-confidence and a sense of power in persons and classes who otherwise might go timidly to their graves. This virtue has its drawbacks, but on the whole, biologically and racially, it seems to register a gain.

The mechanical operation of industry is beginning to introduce a "philosophy of fatigue," whereby elaborate tests determine just how long a given individual can work without fatigue poisons damaging his output. No other culture ever dreamed of such controls; controls which obviously make for better physical and mental health. The process is still in its infancy.

Even as pure science brought forth applied science, the necessities of industry have stimulated a great variety of researches into the fundamentals of physics and chemistry. The one has interacted with, and helped to develop, the other.

Cruelty as a social phenomenon has undoubtedly decreased in the last century—of which the strong movement for the abolition of capital punishment is but one indication in many. Coincidentally, the radius of social sympathy has increased. Who used to weep for famine sufferers in China? Now the cable and the camera bid us weep in short order—and we do, to the tune of millions a year. A citizen of Rome, one suspects, would have regarded the Red Cross as so much moonshine.

EFFECTS MANIFESTLY EVIL

The menace of mechanized warfare grows daily more ominous—particularly in respect to the airplane capable of the three-dimensional attack.

The tenuousness of connection and balance in the interlocked industrial structure also grows. Any crisis—such as a strike of key

technicians, a struggle between rival industrial groups, or an act of God may seriously, perhaps horribly, upset the whole social equilibrium. There is also an alarming shrinkage in the average man's understanding of the technology which shelters, clothes and feeds him. Technical achievement and public ignorance of its implications are tending to move with equal velocity in opposite directions.

Natural resources are being exploited at a rate as alarming as it is wasteful.

The factor of monotony and wearisome repetition in mechanical work is an ever-present evil, particularly if the worker is temperamentally ill-adjusted to the process.

Specialized tasks are sundering the ancient trinity of work, play and art, and thus tending to upset an admirable, and perhaps biologically necessary, human equation. Meanwhile commercialized and mechanized recreation with its second-hand rather than first-hand participation, is tending further to upset the equation.

Specialization has enormously promoted the importance of money, and made it the *sine qua non* of modern life. This leads to a serious confusion of values, in that the symbol displaces the underlying reality.

Workmen are displaced by machinery faster than they can be absorbed in other occupations without serious social cost. Furthermore, the phenomenon of accelerating unemployment, if not already here, may conceivably arrive at any moment.

The existence of more machines than purchasing power to absorb their output has led to the foolish and expensive antics of high pressure salesmanship, and the growing danger of competitive imperialism.

Machinery has created a new ruling class based on profits—largely manufacturing profits—which is no improvement upon the earlier suzerainty based on land, except that its personnel is subject to a greater rate of turnover. Certain of its parasitic dependents are so immersed in the flood of goods that they cancel out as any asset to the race at all. They can be viewed at reasonably close range and in full regalia, in the first cabins of Atlantic liners or in the pages of *Gentlemen Prefer Blondes*. The idle rich are not a new phenomenon, but the scale on which they now operate is unparalleled.

It is claimed that the ratio of mental diseases to the whole population is increasing. I find no satisfactory proof of this claim, but if it is true, it registers a fundamental count against the strains and stresses of machine civilization.

The increased speed and use of the mechanical process has made for a greater accident rate in the United States since 1920. This may, however, be only a temporary phenomenon while adjustment to mass production is being made.

At the present time industry is clearly overvalued at the expense of agriculture. Too much attention is being given to the former and not enough to the latter. In the United States agriculture is in a state of chronic depression in some of its departments all the time, and in all its departments some of the time.

Mechanization has led to cities so congested that it gives little pleasure either to live in them, or to contemplate what will happen if the pressure becomes much greater. It is estimated that traffic congestion now costs the city of New York a cool half billion a year. This again is not a strictly new phenomenon, but its scale is unprecedented.

Machines have engendered a volume and variety of noise hitherto unknown, and which in the opinion of certain medical authorities is damaging both the ears and the whole nervous system to those subject to it.

Dust and smoke constitute two additional evils of the Power Age. The one leads to an alarming mortality in diseases of the respiratory system, the other to the exclusion of sunlight with its health-giving ultra violet rays, and to a general environmental ugliness and depression.

The first effects of introducing the machine into a civilized community are normally disastrous. We have noted in some detail what happened in England. Much the same story could be told of Japan, India, China, today.

By and large the impact of the machine on mature peoples has been an unrelieved story of progressive degeneration. Firearms, factory rum, and ready-made clothes, with their concomitants, have corrupted every littoral upon which they have landed.

EFFECTS BOTH GOOD AND EVIL

Population has increased and migrated on an unprecedented scale during the course of the industrial revolution. The increase has been due more to a declining death rate than to a growing birth rate. Indeed the birth rate in the West has tended to recede in the past few generations. I see no great virtue in a gross increase in population, and a number of reasons why it is to be deplored. Migration is fre-

quently a wholesome phenomenon, but the greatest migration of all—from farm to city—has undoubtedly been over-stimulated.

The machine has brought community self-sufficiency to an end. This makes for greater productive efficiency when everything is going well, and for greater social disaster when everything is going ill. The reason the White armies were not able to subdue revolutionary Russia lay in the fact that the exposed nerves were few—each village could, in a pinch, maintain itself unaided. No such survival is now possible in the United States.

Machines uproot old skills, but create new ones. The new may often lack the craftsman's individual touch, but they give the modern youngster a greater variety from which to choose. Occupations like that of the locomotive engineer, the hook and ladder man, the airplane pilot, the "steel bird," provide plenty of scope for romance, mystery and danger.

The machine has deprived the housewife of her sometime skills, and so forced uncounsed women into futility and neurotic unrest. It has also forced women into the wage-earning class, and thus launched the feminist movement. Feminism is hardly an unmixed blessing, but it will undoubtedly show a net gain in the ledger of history.

The factory puts women and children to work under conditions which are frequently intolerable. But if conditions are made tolerable—as they can be—it is possible to regard machinery as something of a benefactor in providing useful work for whole classes hitherto restrained therefrom by physical handicaps. Children, of course, should be kept out of industry—except as a part of their regular schooling.

In the mass-production industries, a man may earn as much at twenty as at forty—quite possibly more. This upsets all known traditions, but I am not sure it is necessarily an evil thing. Youth has greater capacity to enjoy a good income.

The Power Age has broken up the *mores* of marriage, the family, religion, to a marked degree. This is a painful process, but perhaps invigorating.

Quantity production in goods and printed matter has made for uniformity over a wider area than has obtained in any previous culture—save possibly that of China. This uniformity, however, is subject to frequent and drastic change. Nothing has really crystallized, and the charge of standardization, historically considered, is

something in the nature of a false alarm. That much of the uniformity obtaining at any given moment is oppressive cannot be denied.

The machine has ruthlessly destroyed a whole age of art, but is busy creating a new age, which already, in architecture and design, has achieved distinction. The process furthermore is by no means complete; give the machine a few more decades.

The quality of certain goods has fallen, while the quality of others has improved. If the machine is kept within its technological limits, it can provide a whole new budget of useful, durable, and even beautiful products. Regard an ocean liner, a well-built motor car, an airplane. We also note the beautiful mechanisms employed to turn out terrible trash—for instance the broadcasting control-board, with a cheap politician before the microphone.

We tend to draw our knowledge increasingly from written documents and decreasingly from first hand experience—as did the guild apprentice. This divorces us from reality, but gives us wider scope. Where the balance lies I do not know. Undoubtedly much good has come from teaching the last man to read—but then again, regard what he is normally reading. The illiterate reads the seasons and the stars; the literate the tabloids and baseball scores.

Life moves faster than it ever did; there is far more to experience, and rather less emotional ability with which to experience it. Compare the accounts of the travels of Marco Polo with those of Mr. Aldous Huxley. Some fundamental capacity to savour life is missing from the emotional makeup of Mr. Huxley and his friends. They know too much and do not feel enough. The machine has over-educated them. It overeducates many of us.

When the workman left his cottage and his shop for the factory, he lost his economic independence. He gave up his own tools, and operated tools owned by somebody else. He ceased to control his own time and his own job. So long as the force which owns the factory has no interest in labour save as a commodity, the workman is distinctly worse off than before. If, however, the force . . . regards the workman as a human being for whose benefit the wheels of industry are principally turning, he may well stand to gain more than he has lost. Goods can be produced with less labour by the machine, and in no other way can his standard of living be markedly increased. In the last analysis more economic independence is to be secured in a machine technology, humanly controlled, than ever obtained in the handicraft era.

There is some overlapping in the above lists, but it is inevitable. All items are part of one organic phenomenon—prime movers clanking about in the social structure. The reader must draw his own conclusions, but as I study the schedules, I incline to the belief that machinery has so far brought more misery than happiness into the world. It has, however, brought the fresh winds of change; and with them, vitality and invigoration. We are not in the lock-step of the Middle Ages or of the later days of Egypt. With change, improvement is always possible. The trend is towards improvement in many departments. If the triple menaces of war, technological tenuousness and failure of natural resources can be forestalled, and some sort of conscious functional control inaugurated, perhaps in another generation the net balance may fall on the other side.

Of the evil effects which we have noted, not all are due to the fact of mechanization, but rather to the manner in which it has been used. Gasoline is a good thing, but not when used to light the kitchen stove. Is it possible to segregate those evils which are implicit in the machine itself from the more or less extraneous evils which have been created by its human direction—or lack of direction?

THE MACHINE AND TECHNOLOGICAL UNEMPLOYMENT¹

HENRY HAZLITT²

Mr. Hazlitt here expresses the belief that technological unemployment is a bogey, since machines—in the long run—do not tend to displace men from their jobs.

Among the most viable of all economic delusions is the belief that machines on net balance create unemployment. Destroyed a thousand times, it has risen a thousand times out of its own ashes as hardy and vigorous as ever. Whenever there is long-continued mass unemployment, machines get the blame anew. This fallacy is still the basis of

¹ This selection is reprinted by the kind permission of the publishers from Henry Hazlitt, *Economics in One Lesson*, New York: Harper & Brothers, Publishers, 1946, pages 41-55.

² Henry Hazlitt (1884-) is financial editor of *Newsweek* magazine.

many labor union practices. The public tolerates these practices because it either believes at bottom that the unions are right, or is too confused to see just why they are wrong.

The belief that machines cause unemployment, when held with any logical consistency, leads to preposterous conclusions. Not only must we be causing unemployment with every technological improvement we make today, but primitive man must have started causing it with the first efforts he made to save himself from needless toil and sweat.

To go no further back, let us turn to Adam Smith's *The Wealth of Nations*, published in 1776. The first chapter of this remarkable book is called "Of the Division of Labor," and on the second page of this first chapter the author tells us that a workman unacquainted with the use of machinery employed in pin-making "could scarce make one pin a day, and certainly could not make twenty," but that with the use of this machinery he can make 4,800 pins a day. So already, alas, in Adam Smith's time, machinery had thrown from 240 to 4,800 pin-makers out of work for every one it kept. In the pin-making industry there was already, if machines merely throw men out of jobs, 99.98 per cent unemployment. Could things be blacker?

Things could be blacker, for the Industrial Revolution was just in its infancy. Let us look at some of the incidents and aspects of that revolution. Let us see, for example, what happened in the stocking industry. New stocking frames as they were introduced were destroyed by the handicraft workmen (over 1,000 in a single riot), houses were burned, the inventors were threatened and obliged to fly for their lives, and order was not finally restored until the military had been called out and the leading rioters had been either transported or hanged.

Now it is important to bear in mind that in so far as the rioters were thinking of their own immediate or even longer futures their opposition to the machine was rational. For William Felkin, in his *History of the Machine-Wrought Hosiery Manufacturers* (1867), tells us that the larger part of the 50,000 English stocking knitters and their families did not fully emerge from the hunger and misery entailed by the introduction of the machine for the next forty years. But in so far as the rioters believed, as most of them undoubtedly did, that the machine was permanently displacing men, they were

mistaken, for before the end of the nineteenth century the stocking industry was employing at least a hundred men for every man it employed at the beginning of the century.

Arkwright invented his cotton-spinning machinery in 1760. At that time it was estimated that there were in England 5,200 spinners using spinning wheels, and 2,700 weavers—in all 7,900 persons engaged in the production of cotton textiles. The introduction of Arkwright's invention was opposed on the ground that it threatened the livelihood of the workers, and the opposition had to be put down by force. Yet in 1787—twenty-seven years after the invention appeared—a parliamentary inquiry showed that the number of persons actually engaged in the spinning and weaving of cotton had risen from 7,900 to 320,000, an increase of 4,400 per cent.

If the reader will consult such a book as *Recent Economic Changes*, by David A. Wells, published in 1889, he will find passages that, except for the dates and absolute amounts involved, might have been written by our technophobes (if I may coin a needed word) of today. Let me quote a few:

During the ten years from 1870 to 1880, inclusive, the British mercantile marine increased its movement, in the matter of foreign entries and clearances alone, to the extent of 22,000,000 tons . . . yet the number of men who were employed in effecting this great movement had decreased in 1880, as compared with 1870, to the extent of about three thousand (2,990 exactly). What did it? The introduction of steam-hoisting machines and grain elevators upon the wharves and docks, the employment of steam power, etc. . . .

In 1873 Bessemer steel in England, where its price had not been enhanced by protective duties, commanded \$80 per ton; in 1886 it was profitably manufactured and sold in the same country for less than \$20 per ton. Within the same time the annual production capacity of a Bessemer converter has been increased fourfold, with no increase but rather a diminution of the involved labor. . . .

The power capacity already being exerted by the steam engines of the world in existence and working in the year 1887 has been estimated by the Bureau of Statistics at Berlin as equivalent to that of 200,000,000 horses, representing approximately 1,000,000,000 men; or at least three times the working population of the earth. . . .

One would think that this last figure would have caused Mr. Wells to pause, and wonder why there was any employment left in

the world of 1889 at all; but he merely concluded, with restrained pessimism, that "under such circumstances industrial overproduction . . . may become chronic."

In the depression of 1932, the game of blaming unemployment on the machines started all over again. Within a few months the doctrines of a group calling themselves the Technocrats had spread through the country like a forest fire. I shall not weary the reader with a recital of the fantastic figures put forward by this group or with corrections to show what the real facts were. It is enough to say that the Technocrats returned to the error in all its native purity that machines permanently displace men—except that, in their ignorance, they presented this error as a new and revolutionary discovery of their own. It was simply one more illustration of Santayana's aphorism that those who cannot remember the past are condemned to repeat it.

The Technocrats were finally laughed out of existence; but their doctrine, which preceded them, lingers on. It is reflected in hundreds of make-work rules and feather-bed practices by labor unions; and these rules and practices are tolerated and even approved because of the confusion on this point in the public mind.

Testifying on behalf of the United States Department of Justice before the Temporary National Economic Committee (better known as the TNEC) in March, 1941, Corwin Edwards cited innumerable examples of such practices. The electrical union in New York City was charged with refusal to install electrical equipment made outside of New York State unless the equipment was disassembled and reassembled at the job site. In Houston, Texas, master plumbers and the plumbing union agreed that piping prefabricated for installation would be installed by the union only if the thread were cut off one end of the pipe and new thread were cut at the job site. Various locals of the painters' union imposed restrictions on the use of spray-guns, restrictions in many cases designed merely to make work by requiring the slower process of applying paint with a brush. A local of the teamsters' union required that every truck entering the New York metropolitan area have a local driver in addition to the driver already employed. In various cities the electrical union required that if any temporary light or power was to be used on a construction job there must be a full-time maintenance electrician, who should not be permitted to do any electrical construction work. This rule, according to Mr. Edwards, "often involves the hiring of a man

who spends his day reading or playing solitaire and does nothing except throw a switch at the beginning and end of the day."

One could go on to cite such make-work practices in many other fields. In the railroad industry, the unions insist that firemen be employed on types of locomotives that do not need them. In the theaters unions insist on the use of scene shifters even in plays in which no scenery is used. The musicians' union requires so-called "stand-in" musicians or even whole orchestras to be employed in many cases where only phonograph records are needed.

One might pile up mountains of figures to show how wrong were the technophobes of the past. But it would do no good unless we understood clearly *why* they were wrong. For statistics and history are useless in economics unless accompanied by a basic *deductive* understanding of the facts—which means in this case an understanding of why the past consequences of the introduction of machinery and other labor-saving devices *had* to occur. Otherwise the technophobes will assert (as they do in fact assert when you point out to them that the prophecies of their predecessors turned out to be absurd): "That may have been all very well in the past; but today conditions are fundamentally different; and now we simply cannot afford to develop any more labor-saving machinery." Mrs. Eleanor Roosevelt, indeed, in a syndicated newspaper column of September 19, 1945, wrote: "We have reached a point today where labor-saving devices are good only when they do not throw the worker out of his job."

If it were indeed true that the introduction of labor saving machinery is a cause of constantly mounting unemployment and misery, the logical conclusions to be drawn would be revolutionary, not only in the technical field but for our whole concept of civilization. Not only should we have to regard all further technical progress as a calamity; we should have to regard all past technical progress with equal horror. Every day each of us in his own capacity is engaged in trying to reduce the effort it requires to accomplish a given result. Each of us is trying to save his own labor, to economize the means required to achieve his ends. Every employer, small as well as large, seeks constantly to gain his results more economically and efficiently—that is, by saving labor. Every intelligent workman tries to cut down the effort necessary to accomplish his assigned job.

The most ambitious of us try tirelessly to increase the results we can achieve in a given number of hours. The technophobes, if they were logical and consistent, would have to dismiss all this progress and ingenuity as not only useless but vicious. Why should freight be carried from New York to Chicago by railroads when we could employ enormously more men, for example, to carry it all on their backs?

Theories as false as this are never held with logical consistency, but they do great harm because they are held at all. Let us, therefore, try to see exactly what happens when technical improvements and labor-saving machinery are introduced. The details will vary in each instance, depending upon the particular conditions that prevail in a given industry or period. But we shall assume an example that involves the main possibilities.

Suppose a clothing manufacturer learns of a machine that will make men's and women's overcoats for half as much labor as previously. He installs the machines and drops half his labor force.

This looks at first glance like a clear loss of employment. But the machine itself required labor to make it; so here, as one offset, are jobs that would not otherwise have existed. The manufacturer, however, would have adopted the machine only if it had either made better suits for half as much labor, or had made the same kind of suits at a smaller cost. If we assume the latter, we cannot assume that the amount of labor to make the machines was as great in terms of payrolls as the amount of labor that the clothing manufacturer hopes to save in the long run by adopting the machine; otherwise there would have been no economy, and he would not have adopted it.

So there is still a net loss of employment to be accounted for. But we should at least keep in mind the real possibility that even the *first* effect of the introduction of labor-saving machinery may be to increase employment on net balance; because it is usually only *in the long run* that the clothing manufacturer expects to save money by adopting the machine: it may take several years for the machine to "pay for itself."

After the machine has produced economies sufficient to offset its cost, the clothing manufacturer has more profits than before. (We shall assume that he merely sells his coats for the same price as his competitors, and makes no effort to undersell them). At this point, it may seem, labor has suffered a net loss of employment, while it is only the manufacturer, the capitalist, who has gained. But it is precisely out of these extra profits that the subsequent social gains

must come. The manufacturer must use these extra profits in at least one of three ways, and possibly he will use part of them in all three: (1) he will use the extra profits to expand his operations by buying more machines to make more coats; or (2) he will invest the extra profits in some other industry; or (3) he will spend the extra profits on increasing his own consumption. Whichever of these three courses he takes, he will increase employment.

In other words, the manufacturer, as a result of his economies, has profits that he did not have before. Every dollar of the amount he has saved in direct wages to former coat makers, he now has to pay out in indirect wages to the makers of the new machine, or to the workers in another capital industry, or to the makers of a new house or motor car for himself, or of jewelry and furs for his wife. In any case (unless he is a pointless hoarder) he gives indirectly as many jobs as he ceased to give directly.

But the matter does not and cannot rest at this stage. If this enterprising manufacturer effects great economies as compared with his competitors, either he will begin to expand his operations at their expense, or they will start buying the machines too. Again more work will be given to the makers of the machines. But competition and production will then also begin to force down the price of overcoats. There will no longer be as great profits for those who adopt the new machines. The rate of profit of the manufacturers using the new machine will begin to drop, while the manufacturers who have still not adopted the machine may now make no profit at all. The savings, in other words, will begin to be passed along to the buyers of overcoats—to the *consumers*.

But as overcoats are now cheaper, more people will buy them. This means that, though it takes fewer people to make the same number of overcoats as before, more overcoats are now being made than before. If the demand for overcoats is what economists call "elastic"—that is, if a fall in the price of overcoats causes a larger total amount of money to be spent on overcoats than previously—then more people may be employed even in making overcoats than before the new labor-saving machine was introduced. We have already seen how this actually happened historically with stockings and other textiles.

But the new employment does not depend on the elasticity of demand for the particular product involved. Suppose that, though the price of overcoats was almost cut in half—from a former price,

say, of \$50 to a new price of \$30—not a single additional coat was sold. The result would be that while consumers were as well provided with new overcoats as before, each buyer would now have \$20 left over that he would not have had left over before. He will therefore spend this \$20 for something else, and so provide increased employment in *other* lines.

In brief, on net balance machines, technological improvements, economies and efficiency do not throw men out of work.

3

Not all inventions and discoveries, of course, are “labor-saving” machines. Some of them, like precision instruments, like nylon, lucite, plywood and plastics of all kinds, simply improve the quality of products. Others, like the telephone or the airplane, perform operations that direct human labor could not perform at all. Still others bring into existence objects and services, such as X-rays, radios and synthetic rubber, that would otherwise not even exist. But in the foregoing illustration we have taken precisely the kind of machine that has been the special object of modern technophobia.

It is possible, of course, to push too far the argument that machines do not on net balance throw men out of work. It is sometimes argued, for example, that machines create more jobs than would otherwise have existed. Under certain conditions this may be true. They can certainly create enormously more jobs *in particular trades*. The eighteenth century figures for the textile industries are a case in point. Their modern counterparts are certainly no less striking. In 1910, 140,000 persons were employed in the United States in the newly created automobile industry. In 1920, as the product was improved and its cost reduced, the industry employed 250,000. In 1930, as this product improvement and cost reduction continued, employment in the industry was 380,000. In 1940 it had risen to 450,000. By 1940, 35,000 people were employed in making electric refrigerators, and 60,000 were in the radio industry. So it has been in one newly created trade after another, as the invention was improved and the cost reduced.

There is also an absolute sense in which machines may be said to have enormously increased the number of jobs. The population of the world today is three times as great as in the middle of the eighteenth century, before the Industrial Revolution had got well under way. Machines may be said to have given birth to this increased

population; for without the machines, the world would not have been able to support it. Two out of every three of us, therefore, may be said to owe not only our jobs but our very lives to machines.

Yet it is a misconception to think of the function or result of machines as primarily one of creating *jobs*. The real result of the machine is to increase *production*, to raise the standard of living, to increase economic welfare. It is no trick to employ everybody, even (or especially) in the most primitive economy. Full employment—very full employment; long, weary, back-breaking employment—is characteristic of precisely the nations that are most retarded industrially. Where full employment already exists, new machines, inventions and discoveries cannot—until there has been time for an increase in population—bring *more* employment. They are likely to bring more *unemployment* (but this time I am speaking of *voluntary* and not *involuntary* unemployment) because people can now afford to work fewer hours, while children and the over-aged no longer need to work.

What machines do, to repeat, is to bring an increase in production and an increase in the standard of living. They may do this in either of two ways. They do it by making goods cheaper for consumers (as in our illustration of the overcoats), or they do it by increasing wages because they increase the productivity of the workers. In other words, they either increase money wages or, by reducing prices, they increase the goods and services that the same money wages will buy. Sometimes they do both. What actually happens will depend in large part upon the monetary policy pursued in a country. But in any case, machines, inventions and discoveries increase *real* wages.

4

A warning is necessary before we leave this subject. It was precisely the great merit of the classical economists that they looked for secondary consequences, that they were concerned with the effects of a given economic policy or development in the long run and on the whole community. But it was also their defect that, in taking the long view and the broad view, they sometimes neglected to take also the short view and the narrow view. They were too often inclined to minimize or to forget altogether the immediate effects of developments on special groups. We have seen, for example, that the English stocking knitters suffered real tragedies as a result of the introduction

of the new stocking frames, one of the earliest inventions of the Industrial Revolution.

But such facts and their modern counterparts have led some writers to the opposite extreme of looking *only* at the immediate effects on certain groups. Joe Smith is thrown out of a job by the introduction of some new machine. "Keep your eye on Joe Smith," these writers insist. "Never lose track of Joe Smith." But what they then proceed to do is to keep their eyes *only* on Joe Smith, and to forget Tom Jones, who has just got a new job in making the new machine, and Ted Brown, who had just got a job operating one, and Daisy Miller, who can now buy a coat for half what it used to cost her. And because they think only of Joe Smith, they end by advocating reactionary and nonsensical policies.

Yes, we should keep at least one eye on Joe Smith. He has been thrown out of a job by the new machine. Perhaps he can soon get another job, even a better one. But perhaps, also he has devoted many years of his life to acquiring and improving a special skill for which the market no longer has any use. He has lost this investment in himself, in his old skill, just as his former employer, perhaps, has lost *his* investment in old machines or processes suddenly rendered obsolete. He was a skilled workman, and paid as a skilled workman. Now he has become overnight an unskilled workman again, and can hope, for the present, only for the wages of an unskilled workman, because the one skill he had is no longer needed. We cannot and must not forget Joe Smith. His is one of the personal tragedies that, as we shall see, are incident to nearly all industrial and economic progress.

To ask precisely what course we should follow with Joe Smith—whether we should let him make his own adjustment, give him separation pay or unemployment compensation, put him on relief, or train him at government expense for a new job—would carry us beyond the point that we are here trying to illustrate. The central lesson is that we should try to see *all* the main consequences of any economic policy or development—the immediate effects on special groups, and the long-run effects on all groups.

THE MACHINE AND HIGHER STANDARDS OF LIVING ¹

N.A.M. ²

Here is presented the view that technological improvements—if unhampered by governmental interference—tend to result in lower prices for the consumer, an increased production of old products, and the availability of new products in the market.

The beneficial effects of the mechanization of industry, or technological progress, which is made possible by increased capital investments, reach throughout our economic system. It increases the output per worker by placing in his hands machines that immeasurably increase his power and variety of work. It does much to eliminate the drudgery of labor by the use of machinery to do many of the unpleasant jobs that formerly could be performed only by hand. It increases the leisure time for the worker by so enlarging his productivity per unit of time that it is possible for industry to pay him a living wage for a smaller number of hours. It makes possible an ever-widening list of commodities available for general consumption. And, by lowering production costs, it brings about such a reduction of prices for thousands of articles that it may truly be said that the luxuries of one generation become the necessities of the next.

However, there is another aspect of the problems of technological progress that needs attention. This is the question of its effect upon employment. Usually this aspect of technological progress is thought of as referring only to labor. Actually it applies equally well to capital. Many, if not most, technological improvements impair or destroy, through making obsolete, the value of some already existing capital. But it is the effect of technological improvement upon the

¹ This selection is reprinted by the kind permission of the publishers from The Economic Principles Commission of the NAM, *The American Individual Enterprise System*, New York: McGraw-Hill Book Company, Inc., 1946, Volume I, pages 40-43.

² The National Association of Manufacturers is an employer association which lists as its objectives "the promotion of industry and commerce, the improvement of employer-employee relations and the protection of individual liberties and rights of all."

employment of labor that has caused most concern; so let us concentrate our attention on that aspect.

The first point to note is that a technological improvement not infrequently, for the moment, throws men out of work. This is because in many instances the purpose of making a technological improvement is to reduce the cost of production, and one of the major elements in cost is wages.

But that is only a first result. In the long run the effect of a technological improvement may be, and in fact will be, if there is no unnecessary restraint, or, in other words, if there is freedom of competition, exactly the reverse. The technological improvement means lower cost of production. This reduced cost in turn means there is a "dividend" to be distributed. Under monopoly this dividend may take the form of higher profits for the owners of the business; but under competition this is possible, at most, to only a limited degree. Rather, under competition, the dividend constantly tends to be distributed in three possible ways: (1) we may have more products of the same kind at a lower price; (2) we may have to work less to get the same volume of products; or, (3) we may, by using the energy and purchasing power released by the improvement, develop new products.

In a smoothly running enterprise system we get some of all three of these effects. The technological improvement causes prices to be lowered, and therefore more of the old products are sold and new products are brought into the market. It is quite possible, as witnessed in thousands of instances in this country, that as a result of technological improvements the total volume of production is increased in the same industry and leads to a greater aggregate employment. Actually, the only cases in which this does not happen, and will not happen in the future, are when, as a result of the improved efficiency of production, workers demand proportionally shorter hours for the same wage and thereby absorb the entire saving resulting from the improvements. In such a case there is no increase in the volume of employment because, since costs of production are not reduced, no more of the product will be sold and there is no need for additional labor. In this instance, the whole benefit of the technological progress is devoted to inncreased leisure time for the immediate workers concerned, instead of being passed along to society as a whole through increased production, lower prices, greater employment, and greater leisure for all.

Taking the span of our history as a whole, it is clear beyond any question that as a result of technological progress we have had both greater and more efficient production. In consequence, the volume of employment has increased in proportion to adult population, and the real wages of our workers have been higher than those found in any other country. Whether this trend continues in the future will depend primarily upon whether we have adequate capital accumulation, whether individual investors have sufficient confidence in the future to use their initiative and their funds for the development of new processes, and whether it is possible for them to pass along to the public as a whole, through reduced prices, the benefits of their accomplishments. If these conditions are not met, it must be obvious that the upward sweep in the living scale of the American public will come to a halt. Only through technological improvements can we produce more and more goods at prices which more and more people can afford to buy.

In other words, if our economic system is "frozen," if new investment is made difficult or unattractive by governmental regulation, by hostility on the part of the Administration, by unbearable labor demands, or if unsurmountable difficulties are put in the way of developing new processes so that private investors are unwilling to risk their funds, then we must look forward to a period when we shall have few, if any, technological improvements, and those we have will tend to result in increased unemployment rather than in new opportunities for labor. Only by permitting the individual enterprise system to function properly, by encouraging initiative, thrift, and the formation of capital, by maintaining competition, and by perpetuating the possibility of reward for those who can produce better goods at lower prices—only if these things are done can we look forward to the continued progress which will provide jobs for further millions of our workers in the years to come.

CHAPTER 6

Technology and the Size of the Business Unit

IS LARGE SCALE PRODUCTION BENEFICIAL? ¹

FEDERAL TRADE COMMISSION

This selection raises two basic questions—whether large business units are technologically more efficient than smaller ones; and if so, whether they pass the benefits of this efficiency on to consumers.

Large-sized corporations in American industry present two fundamental economic problems. The first is the problem of whether such corporations are actually more efficient than small or medium-sized units in their industries. Even if such corporations are more efficient, there is still another problem to be considered. Is the greater efficiency of such corporations passed on to the consuming public in the form of lower prices as the result of free and fair competition? Or does such corporate size operate to suppress competition so that the efficiency achieved merely increases profits by widening the difference between costs and noncompetitive selling prices?

The Commission knows that in many fields of industry, even if large corporations are efficient, the benefits of their efficiency are not enjoyed by the consuming public, since the effect of such corporate size has been to enhance prices, without advantage to the consumer. Consequently, no matter how efficient large corporations in industry may be, if they operate to repress competition their size cannot be defended on the ground that it is in the public interest.

When free and fair competition prevails, business is under a constant spur to reduce costs through efficiency, and to share such savings with the public in the form of lower prices. The constant lowering of costs in industry and the sharing of such savings with consumers is the vital process in a capitalistic system whereby stand-

¹ This selection is reprinted from Monograph No. 13, Temporary National Economic Committee, Washington: U. S. Government Printing Office, 1941, page 132.

ards of living are improved through the production and distribution of more wealth and a maximum employment of labor is achieved.

On the other hand if very large corporations are actually less efficient than medium-sized or small corporations in American business, and if, in addition, the large size of such corporations enables them to suppress competition and thereby to frustrate the greater efficiency of medium-sized or small business, this size is indefensible from the standpoint of a sound and progressive capitalistic system. Under such conditions the effect of large size in business is to protect, conserve, and perpetuate inefficiency in business and to destroy capitalism . . .

IS BIG BUSINESS EFFICIENT? ¹

FRANK A. FETTER ²

In this testimony before the T. N. E. C., Professor Fetter claims that any increase in technological efficiency resulting from mergers and combinations is more than offset by losses in managerial efficiency.

Dr. Fetter reinforced the testimony of Dr. Myron W. Watkins with respect to the claim that combinations have more effectively promoted scientific research in industry.

"The claim that more and better research to improve products can and does result from great combinations was one of the earliest and has been one of the most persistent. But grave doubts hang over such a claim. The subject is in need of much completer study. The United States Steel Corporation, for which this claim was strongly made at its inception, was long a notorious laggard and all the significant advances in metallurgy, mostly the development of alloys, for a quarter of a century were made by the comparatively small companies. Some of the most epoch making inventions of our times have come from independent laboratories, such as that of Thomas Edison, or have been merely the last steps taken in the application

¹ This selection is reprinted from Monograph No. 13, Temporary National Economic Committee, Washington: U. S. Government Printing Office, 1941, pages 109-110.

² Frank Albert Fetter (1863-) is Professor Emeritus of Economics in Princeton University.

of pure science discovered at the universities or by scientific workers of the Government. Most hopeful, too, are cooperative plans of research by small industry. By and large, large combinations seem to have exerted themselves far more in buying up patents for use or suppression than they have in leadership of research and invention. This subject is closely connected with that of the revision of the patent policy."

Professor Fetter also pointed out to the Commission that critics of large size in business do not propose to "atomize" American industry back into a handicraft stage.

"No critic of 'big business' in America, so far as I am aware, has ever proposed that any single plant shall be reduced below the optimum size, that is, the size that makes possible the maximum technical efficiency of mass production—in view of the existing state of the arts, in manufacturing and transportation. The position and motives of those who criticize big business is therefore misrepresented when it is said that they would like to reduce industry to mere atoms, and return to the hand tools and methods of the Middle Ages. That is a caricature of the truth and a distortion of the issue."

Professor Fetter's testimony may be summarized under the following points:

(1) Efficiency in mass production means obtaining as low a cost as possible within a plant by the effective coordination of men, machines, and materials.

(2) Mere combination of plants does not increase the efficiency of mass production in the single plants. Additions of plants increase the difficulties of corporate management in effectively supervising the internal efficiency of each plant. When plants are combined, certain other general economies may be achieved, but these in the main represent the ability of aggregated financial resources to exploit a free and fair competitive system.

(3) Such economies, however, even though achieved at the expense of free and fair competition, may be more than offset by increasing plant costs due to losses in managerial efficiency, which results when too many plants have to be managed.

(4) Whether the mergers or combinations are horizontal or vertical, the foregoing principles apply. Horizontal combinations do not increase the efficiency of mass production; neither do vertical combinations except in a relatively few cases where vertical integration is related to the elimination of technical waste in production. Both

in horizontal combination and vertical combination the general effect is to decrease managerial efficiency.

(5) Large corporations did not create mass production. Mass production existed before the creation of great corporations in American business 50 years ago. Mass production is, of course, conducted today by large corporations. But it could be achieved more effectively by smaller corporations. More efficient mass production would be achieved if corporate management confined itself to managing a smaller number of plants of optimum size, rather than attempting to manage numerous plants of diverse size, often producing multiple products, and widely dispersed geographically. Real efficiency in mass production is impaired when corporate management either fails to concentrate its energies on the achievement of intraplant economies, or when the number of plants under the direction of a management are so numerous and complex in their activities that an effective supervision of such plants internally becomes a physical impossibility. The greatest efficiency in mass production is attained when men, machines and materials are coordinated to a maximum degree of effectiveness within a plant. Corporate management in large corporations today is generally too remote from plants and factories to effectively organize them internally. Such management generally concentrates its energies on financial policies which may be of benefit to some persons, but not necessarily to the public, or even to the stockholders of the corporation. . . .

SIZE AND TECHNOLOGICAL EFFICIENCY ¹

FEDERAL TRADE COMMISSION

The Federal Trade Commission here presents the argument that—contrary to widespread public belief—the growth of large scale business units does not necessarily result in superior technological efficiency.

Students of American industry who have been skeptical for many years of the popular idea that great size insures efficiency have in

¹ This selection is reprinted from Monograph No. 13, Temporary National Economic Committee, Washington: U. S. Government Printing Office, 1941, pages 95-97.

general emphasized three reasons for their belief to the contrary. These reasons ascribe the disadvantages of great size to: (1) Its genesis; (2) its violation of a fundamental concept of efficiency in mass production; (3) absentee management. . . .

(1) Frequently large corporations in American business were not created for the purpose of promoting business efficiency. Generally, the great corporations in American business did not attain their size by growth through the reinvestment of the profits of their efficiency under a system of fair competition where the soundness of every stage of such growth was thoroughly tested by competitive opposition. They attained their size mainly through the processes of financial merger and combination. Such processes make possible immediate and frequently tremendous growth in the size of business, but it is important to determine whether the resulting size in business was achieved primarily for the purpose of promoting business efficiency. It is well known that there are many motives which have actuated promoters to merge and combine businesses which are not concerned in the least with promoting increased business efficiency. Suppression of competition and the desire for promotional and underwriting profits have often been the chief lure for creating size in business. Some members of industry are only too willing to relinquish the competitive struggle if monopoly profits can be achieved.

They know that if a consolidation is large enough it will be able to establish a price leadership in an industry, which small competitors in the industry dare not challenge. Profits through price stabilization seem easy, whereas profits through cost reduction are hard.

For predatory promoters and underwriters, the creation of great size in business has many times afforded a royal road to riches. The bigger the business, the easier it is to magnify its prospects and to sell to the public its securities at inflated values. Promoters and investment bankers may naturally be expected to be more interested in bonuses and commissions than in the promotion of business efficiency.

Further evidence of the real motives behind most consolidations and mergers is their timing. Too many of the large corporations have been organized during the upswing of the business cycle when the stock market could readily absorb new securities issues. If consolidations and mergers could really effect substantial economies in business it would be expected that mergers and consolidations would

certainly occur during hard times, when economies are most needed in business. But when hard times come along, the merger and combination movement practically ceases. In summary, it may be said that if the motives for size attainment in business were motives not connected with promoting business efficiency, one would not expect the resulting large size in business to be accidentally efficient. Moreover, there is considerable evidence to the effect that promoters employing the processes of merger and consolidation have often been very careless about the efficiency of the companies and plants brought into the combination or merger. One of the chief safeguards to the salutary operation of competitive economy is that the elimination of high cost inefficient producers be not deferred. In many mergers and combinations the reckless inclusion of high cost properties has insured their survival through the protecting influence of price maintenance.

(2) Some critics of size have pointed out that the conditions under which mass production promotes efficiency have been but little understood by the public.

Efficiency in mass production is primarily attained by the achievement of intraplant, as distinguished from interplant, economies.

The greatest opportunity to lower costs in mass production lies within a plant. Here many economies can be effected which lower costs. To achieve these economies, men, machines, and materials must be effectively coordinated within a plant. Some examples of intraplant economies are more use of highly specialized machinery for a single product, thus reducing the machine cost attributable to each unit of product; less idleness of machines during changes and adjustments for sizes, patterns, etc.; greater output per worker through increased skill resulting from specialized practice; economical use of factory space and storage space; the application of principles of scientific management generally, so as to eliminate waste in the use of materials, light, and power; conservation of the life of machines; sanitary and healthful conditions of work which increase the productivity of labor. Intraplant economies can lower costs of production more substantially than interplant economies. But large corporate management, instead of concentrating its efforts on effective plant administration, is forced to spread its attention thinly over the supervision of many plants. Intraplant wastes may so multiply as to more than offset any interplant advantage of selling, buying, financ-

ing, etc. Many businessmen, successful in managing a plant, may not have the ability to delegate authority effectively, or to find capable subordinates, when their company expands too rapidly.

In many of our great corporations there are hundreds of plants that have to be supervised. Here, effective management often becomes impossible. When a company absorbs a great many plants, the greatest success, such critics contend, naturally exists in a plant of optimum size. The more numerous the plants of a company, the more necessary it becomes for the management to rely upon methods of remote control.

So-called interplant economies such as the claim that large corporations can purchase their supplies more cheaply, obtain special concessions from railroads, deal more effectively with labor and their jobbers, etc., are largely obtained at the expense of a free and fair competitive system and should not be allowed where the preservation of such a system is desired. Even though they exist, the advantage of them is more than offset by the resulting inefficient administration of workers, machines, and materials; by management which is forced through the very size of many large corporations to manage at a distance rather than by direct contact with plants.

(3) Finally, large business frequently necessitates absentee management. American business today is often so big as to defy human ability to manage it efficiently. The paralyzing effect of such giant size in business is further aggravated by an apparent reluctance on the part of directors and even presidents of corporations to confine their managerial activities to their own corporations. The leaders in American industry entrusted by their stockholders with the control of many great companies are perhaps the least specialized men in the business world. They serve as directors in many companies in addition to the one they are supposed to direct. Many of them know little or nothing about the varied affairs of the corporations which they are supposed to manage. Most of them are frankly interested in only a small part of their general responsibility as directors and managers of enterprises. They almost exclusively confine their attention to the financing of their companies, which activity is only one phase of a much broader, more difficult problem of efficiently managing business. The result is that the managers of very large corporations often totally neglect the most fundamental basis of real efficiency in business—the effective supervision of men, machines, and material so as to eliminate waste and achieve lower operating costs. . . .

SIZE AND MANAGERIAL EFFICIENCY¹

FEDERAL TRADE COMMISSION

It is argued here that the directors of large business organizations know little or nothing about the technical aspects of their business and that they have too many outside interests to be concerned with efficient management.

If, according to this report, directors of large corporations know little or nothing about the technical side of the business, how can such directors select competent officers to run the organization? And if the officers are incompetent, how will they ever be discovered, if the directors know nothing about the business? Incompetency is not always to be measured by earnings. Many times in the business world a corporation may seemingly thrive, not because it is competitively efficient, but because it has financial contacts and economic power that command business. Consequently, though earnings might be satisfactory, a really competent manager might have made them far better by the elimination of inefficiency and waste. If boards of directors cannot be interested in efficient management because of too many outside interests, where does responsibility for efficient management begin in very large corporations? Does it begin with the president? If so, the problem of management becomes that much more difficult. Instead of 15 or 20 men directing the business in all its phases, there is placed upon the shoulders of one individual a task that is from 15 to 20 times greater. Yet, in spite of this, we find the presidents of very large corporations engaged in managing or directing many other outside businesses. . . .

Mr. H. Donald Campbell is president of the Chase National Bank of the city of New York today. The record shows Mr. Campbell also directing a smelting and refining company, three insurance companies, a motion-picture corporation, an indemnity company, and a coal company. Mr. Gordon S. Rentschler is president of the National City Bank of New York, the second largest bank in the United

¹ This selection is reprinted from Monograph No. 13, Temporary National Economic Committee, Washington: U. S. Government Printing Office, 1941, page 125.

States, with assets running over \$2,000,000,000. The record shows Mr. Rentschler also directing a banking corporation, a machinery manufacturing corporation, another bank, the Discount Corporation of New York, two insurance companies, the National Cash Register Co. and the International Telephone & Telegraph Corporation. . . .

CHAPTER 7

Implications of the Technological Revolution

THE TECHNOLOGICAL REVOLUTION AND INSTITUTIONAL CHANGE¹

G. D. H. COLE²

G. D. H. Cole here explains how the Industrial Revolution resulted in three basic changes: (1) large scale production, (2) the adoption of the factory system, and (3) the concentration of control over large amounts of capital in the hands of a few.

A hundred years ago, large-scale production and power-driven machinery were new things, and the workers, when they were able, were kicking desperately against them. The great factories, the industrial towns crowded with hordes of ill-housed and worse-fed factory operatives, the employers who gathered hundreds together under a single roof to work for their profit at the machines, the wonderful machines themselves that were rapidly displacing human skill, and turning out goods at a pace with which the handicraftsmen could not hope to compete, were all new. The great change which we call the "Industrial Revolution" had, in half a century, turned England from a mainly agrarian country to a vast workshop which was already beginning to supply a large part of the world demand for manufactured goods. The transformation had been extraordinarily rapid, and had brought in its train a great change in the structure of society. A new employing class on the one hand, a new wage-earning class on the other, faced each other menacingly. In the mind of the peasant driven from the village to the factory, and in the mind of the craftsman whose skill was being superseded,

¹ This selection is reprinted by kind permission of the publishers and author from G. D. H. Cole, *The Economic System*, London: Longmans, Green and Co., Ltd., 1931, pages 1-9.

² George Douglas Howard Cole (1889-) is professor in All Souls College, Oxford, England, and an outstanding Fabian Socialist.

was a great hatred of the new machine-power which seemed to be crushing remorselessly both alike. In the minds of the new employers, on the other hand, were a great pride and a feeling of exultation in the vast new power of achievement which the machines had placed in their hands. This feeling made them ruthless in driving the workers hard, and in repressing any movement among them which seemed to menace the triumph of the new industrial system. To the worker, the machine seemed a Juggernaut, overwhelming in its savage power. To the employer, the worker who revolted against it seemed a blasphemer against the new gospel of mechanical progress.

So much is said here because it is important to realize that the industrial system under which we live is a modern innovation. Less than two centuries ago, England was still mainly an agricultural country. The only large town was London (even larger then than now in relation to the country as a whole); the only great industry was the woollen industry, and that was mainly carried on, under the so-called "domestic system," by craftsmen in their own homes or in small workshops where only a few workers were employed.

This is not to say that Capitalism is as new as the industrial system under which we live. Far from it. Eighteenth-century England was already capitalistic in a very real sense. There was no lack of rich merchants growing fat on the profits of foreign trade with India or America, no lack of clothiers who used large masses of capital in setting the scattered craftsmen to work. There was, moreover, already a big wage-earning class. The coal mines, the iron-works, and a good many other industrial establishments were already organized on a highly capitalistic basis. The owner of capital in the eighteenth century was just as keen on making a profit as his successors are to-day, just as much on the look-out for an investment capable of yielding a satisfactory dividend. In the towns, the printer, the tailor, the building craftsman and many others worked for a master and received a wage much as the worker receives one to-day. Capitalism and the division between masters and workers did not begin with the Industrial Revolution. They had been in existence long before the coming of the great machines.

None the less, the coming of the machines made so big a difference that it is reasonable to date from their introduction the beginning of the new industrial order. For the great inventions of the eighteenth and early nineteenth centuries did three things: (1) They made it cheaper to produce goods of many kinds on a large

than on a small scale; (2) they made it cheaper to gather the workers together into factories where the machinery was installed than to leave them to work in their own homes or in small and scattered workshops; and (3) they made it necessary, for production as well as for trade, to accumulate capital in large masses under the control of a single person or a small group of partners or managers. On these three things the modern industrial system is based.

The new machines made it cheaper to produce on a large scale. This involved, in one trade after another, the disappearance of the small "independent producer." He could no longer compete, and surely and gradually he was crushed out. A few "small men" contrived to rise into the ranks of the new employing class; but the great majority either sank into hopeless poverty in a vain competition with the machines, or sought and found work in the new factories as wage-earners. Here and there, of course, the "independent producer" survived, and survives to-day. But even when he was not crushed out, his lot was hard. The "home-worker" is notoriously the bottom-dog of the present-day industrial system.

The new machines made it cheaper, and even necessary, for the employer to gather a large number of workers together under a single roof. Until the machines came, there was in most trades no economy in doing this. Handicraftsmen, as a rule, work best in small groups or alone. The factory, on the other hand, above all since the introduction of mechanical power, depends on its power-house, from which all the machines are moved. The workers, therefore, must come together in one place to work. But this fact has vast social consequences. Driven together into the factory, and subjected there to mainly uniform conditions of employment, the workers find it both more necessary and more natural to combine than they found it under the old industrial system. Trade Unionism, in its modern form, is a direct product of factory conditions.

Moreover, the workers, if they work together in great groups, must also live together. The factory gives rise to the modern industrial town. And, as a rule, it is necessary for many factories to be gathered together in one place. Each factory is not wholly independent of others; they are mutually dependent for both materials and markets. One factory may produce the yarn that is woven in another; one may use the "intermediate product" of another as its own raw material.

Nor is this all. Factories producing similar products tend to settle

in the same locality. Some parts of Lancashire are specially suitable for cotton spinning owing to their climate; ironworks tend to group themselves around the coalfields, which supply their heaviest and bulkiest raw material. And, where a number of factories concerned with the same trade are gathered together, others will tend to follow, because there will be found a market and an organization of the trade which will make it easier both to secure the skilled labour needed for production and to sell the products to the best advantage.

These were the main causes which led to the concentration of industries in certain districts, and to the growth of the great industrial towns. Their growth has brought countless problems in its train. The industrial towns, built for speed and cheapness and mostly lacking any form of responsible local government, were utterly insanitary, and bred pestilence as well as despair among their inhabitants. Modern local government has been developed chiefly as a belated attempt to deal with these horrible urban conditions. Gradually, at least a semblance of order and decency has been introduced; and, in introducing it, the modern Town Council has inevitably become itself a great employer of labour and, in some spheres, a rival and challenger of the private or capitalist employer.

Thirdly, the coming of the machines, by causing the scale of production to be enlarged, made necessary the accumulation of capital in large masses under single control. While the scale of production was small, the controller of the productive process did not necessarily need a large capital, although in most forms of overseas trading a large capital was already needed. The machines extended the need from the business of trading to that of actual production. It became more and more difficult for a single man, or even a small group of partners, to own enough capital for the profitable conduct of industry on the growing scale which the efficient use of machinery implied. Moreover, as the revolution extended to the means of transportation, such ownership became sheerly impossible. In order to build turnpike roads, canals, finally railways, it was necessary to bring together under one control capital belonging to large numbers of men, in such a way that the resources of many should be actually managed and controlled by a few. Gradually and inevitably the modern form of joint stock company was developed, and it was made possible for those who had capital, without too great risk to themselves, to invest their money in all manner of productive enterprises in which they had never any intention of taking a practical part.

This transformation was not complete until after the middle of the nineteenth century; and, until it was complete, industry suffered great embarrassments owing to the difficulty of accumulating the capital which was required. This fact partly accounts for the legend that capitalism is based on "abstinence." Until the modern forms of investment were made possible, it was sometimes necessary for the capitalist to practise great personal "abstinence" in order to accumulate capital for development of his business. This in turn partly accounts for the savage fashion in which the early attempts of the workers to improve their position were repressed. The capitalist who practised abstinence himself in order to increase his capital was apt to regard every penny which went into the workers' pockets as so much subtracted from the funds available for the development of his business. He felt that, in keeping down wages, he was doing a social service; for he had a fervent faith in his business, and his idea of goodness was anything that helped it to expand. Joint stock concerns were, indeed, known long before the Industrial Revolution. But while they were seen to be necessary for certain purposes (the East India Company, for example, was a joint stock concern in the seventeenth century), they were frowned upon by both law and public opinion as ways of conducting ordinary business. Adam Smith, the great economist, thought they were suitable only for the conduct of such business as could be reduced to almost absolute routine; and it was generally supposed that they were likely to lead to dishonesty and inefficiency because their directors could not be expected to be as careful with other people's money as with their own. But, in spite of these objections, the coming of power-driven machinery soon compelled business to adopt more and more the joint stock form. And this in turn . . . involved "limited liability," because people would not invest freely where they were liable with all their possessions for the debts of any business in which they had made even a small investment. By 1855 joint stock concerns, based on limited liability, had won acceptance from both the law and public opinion as necessary forms for the carrying on of many kinds of productive enterprise.

Joint stock, in its turn, ushered in a new social revolution. For some time after the coming of the new machines industry had remained primarily the business of a special class of capitalist employers, large and small, who sank their own resources, and what they could borrow privately, in productive enterprises which they

carried on under their own personal control. With the coming of the joint stock system, it became possible for everyone who had money to spare to become, no matter on how large or small a scale, a part-owner in industry. This change had immense social consequences. It speeded up very greatly the fusion of interests and standpoints between the old landowning class and the new capitalists, because the landowners took more and more to investing their surplus resources in industry. It attached the rapidly growing middle class, itself largely a product of the wealth generated by the new industrialism, firmly to the industrial system, because the middle classes took to investing their savings in industrial enterprises. It thus greatly broadened the basis of modern capitalism, and gave it an immensely greater measure of assured support among all sections of the capital-owning classes.

In these three things, then—the economy of large-scale production, the concentration of the workers into large factory groups of wage-earners and the accumulation of capital into great masses under a unified control which co-exists with a widely different ownership of the resources employed—we have the distinguishing marks of the present industrial system.

THE CONFLICT OF BUSINESS VERSUS TECHNOLOGY¹

THORSTEIN B. VEBLEN²

A modern economy such as that of the U. S. falls into two general categories of operations—(1) business functions and (2) industrial functions. Business operations are concerned with money (that is, pecuniary) gains in the sense of prices and profits. Industrial (that is, technological) operations are involved with production in the sense of "turning out the goods." Making money and making goods are thus different aspects. Since our modern economy is dominated by ideas of money making, it means that

¹ This selection is reprinted by kind permission of the publishers from Thorstein Veblen, *The Instinct of Workmanship*, New York: B. W. Huebsch, Inc., 1922, pages 343-352.

² Thorstein Bunde Veblen (1857-1929) was sometime professor of economics in the University of Chicago, Stanford University, University of Missouri, and the New School for Social Research; he is generally recognized as the founder of the Institutional school of economics.

the machine age is run for business reasons rather than for technological reasons. Since efficiency in making money does not mean efficiency in making goods and since these two aims often work against each other, the economy as a whole, it is suggested, is not as healthy as it might be.

The business principles engendered by the habit of mind that gave rise to the system of Natural Rights has had grave consequences for workmanship under the conditions imposed by the machine industry. . . . The individualistic organisation of the work, coupled with the personal incidence of the handicraft technology, and the stress thrown on price-rating and self-help by the ever increasing recourse to bargain and sale ("free contract") under that system, led in the end to the habitual rating of workmanship in terms of the price it would bring. Then as always workmanlike efficiency commanded the approval of thoughtful men, as being serviceable to the common good and as a substantial manifestation of human excellence; and at the same time, then as ever, efficient work was a source of comfort and complacency to the workman. But under the teaching of the price system efficiency came to be rated in terms of the pecuniary gain.

With the advent of the machine industry this pecuniary rating of efficiency gained a new impetus and brought new consequences for technology as well as for business enterprise. Typically, the machine industry runs on a large scale, as contrasted with handicraft, and it involves a relatively wide and exacting division of labor between workmanship and salesmanship. Under the conditions of large ownership implied in this modern industrial system the workmen no longer have, or can have, the responsibility of the pecuniary management of the industrial concern; on the other hand the same conditions of large ownership and extensive business connections require the businessmen in charge to delegate the immediate oversight of the plant and its technological processes to other hands, and to devote their own energies to the pecuniary management of the concern and its transactions. Hence it follows that as the machine system and the highly specialised business enterprise that goes with it reach a larger scale and a higher degree of elaboration the businessmen in charge are, by training and by progressive limitation of interest, less and less competent to take care of the technological exigencies of the machine system. But at the same time the discretion in technological matters still rests in their hands by force of their

ownership. So that, while the responsibility of technological discretion still rests on them, and cannot be fully delegated to other hands, the exigencies of business enterprise and of the training which it involves will no longer permit them to meet this responsibility in a competent fashion.

The businessmen in control of large industrial enterprises are beginning to appreciate something of their own unfitness to direct or oversee, or even to control, technological matters, and so they have, in a tentative way, taken to employing experts to do the work for them. Such experts are known colloquially as "efficiency engineers" and are presumed to combine the qualifications of technologist and accountant. In point of fact it is as accountants, capable of applying the tests of accountancy in a new field, that these experts commend themselves to the businessmen in control, and the "efficiency" which they look to is an efficiency counted in terms of net pecuniary gain. "Efficiency" in these premises means pecuniary efficiency, and only incidentally or in a subsidiary sense does it mean industrial efficiency—only in so far as industrial efficiency conduces to the largest net pecuniary gain. All the while the businessmen retain the decisive superior discretion in their own incompetent hands, since all the while the whole matter remains a business proposition. The "staff organisation," in which vests the superior control of these technological affairs, consistently remains an organisation of worldly wisdom, business enterprise—not of technological proficiency—a state of things not to be remedied so long as industry is carried on for business profits.

Meantime the workmen of all kinds and grades—labourers, mechanics, operatives, engineers, experts—all imbued with the same pecuniary principles of efficiency, go about their work with more than half an eye to the pecuniary advantage of what they have in hand. The attitude of the trades-unions towards their work and towards the industrial concerns in whose employ their work is done illustrates something of the habitual frame of mind of these men, who are avowed experts in the matter of workmanship.

Latterly many inconveniences have beset the community at large as well as particular sections and classes of the industrial community, due in the main to a consistent adherence to these business principles in the management of industrial affairs. The capitalist-employers, on the one hand, have gone on the full powers with which the modern institution of ownership and its broad implications has

them; with the result that the public at large, investors, consumers of industrial products, users of "public utility" agencies such as light, fuel, transportation, communication, etc., feel very much aggrieved; as do also and more acutely the workmen with whom the capitalist-employers do business on the lines laid down by the authentic business principles of the discretionary ownership of the industrial plant and its products. On the other hand the workmen, resting their case on the common-sense view that the individual is a self-sufficient economic unit who owes nothing to the community at large beyond what he may freely undertake "for a good and valuable consideration and paid"—the workmen stand likewise on the full powers conferred on them by the current institutions of ownership and contractual relations, and so work what mischief they can to their employers and to the public at large, always blamelessly within the rules of the game as laid down of old on the pecuniary principles of business relations, and in the light of such sense as their training has given them with regard to efficiency in the industries that have fallen into disrepair. And then the "money power" comes in as a third and more fully trained factor, with ever increasing force and incisiveness, to muddle the whole situation mysteriously and irretrievably, acting after their own pecuniary interests in a fashion even more utterly legitimate and authentic, if possible, than the workmen's management of their own affairs.

Of course, all this working at cross purposes is not altogether due to untrained incapacity on the part of the several contestants to meet the large and general requirements of the industrial situation. Perhaps it is not even chiefly due to such inability, but rather to a habitual, and conventionally rightful, disregard of other than pecuniary considerations. It would doubtless appear that a trained man is more likely to apprehend any other than the immediate pecuniary consequences of their manoeuvres accounts for a larger share in the conduct of the businessmen who control industrial affairs than it does of their workmen, since the habitual employment of the intellect tends to hold them more rigorously and consistently to the pecuniary relations of whatever passes under their hands; and the like should be true only in a higher degree of those who have to do exclusively with the financial side of business. The state of the industrial arts is such that these several factors should cooperate intelligently and with mutual reservation, with an eye single to the exigencies of this

modern wide-sweeping technological system; but their habitual addiction to pecuniary rather than technological standards and considerations leaves them working at cross purposes. So also their (pecuniary) interests are at cross purposes; and since these interests necessarily rule in any pecuniary culture, they must decide the line of conduct for each of the several factors engaged.

These discrepancies, obstructive tactics and disserviceable practices are commonly deplored and are presumably deplorable, and they doubtless merit extensive discussion on these grounds, but their merits in this bearing do not properly come into consideration here. The matter has been brought in here not with any view of defence, denunciation or remedy, but because it is a matter of grave consequence as regards the training given by business experience to these men in whose hands the current scheme of institutions has placed the technological fortunes of the community. And whether these pecuniary tactics and practices that fill so large a place in the attention and sentiments of this generation come chiefly of a lack of insight into current technological exigencies, or of a deliberate choice of evils enforced by the pecuniary necessities of the case, still their disciplinary value as bearing on the sense of workmanship taken in its larger scope will be much the same in either case. Habituation to bargaining and to the competitive principles of business necessarily brings it about that pecuniary standards of efficiency invade (contaminate) the sense of workmanship; so that work, workmen, equipment and products come to be rated on a scale of money values, which has only a circuitous and often only a putative relation to their workmanlike efficiency or their serviceability. Those occupations and those aptitudes that yield good returns in terms of price are reputed valuable and commendable—the accepted test of success, and even of serviceability, being the gains acquired. Workmanship comes to be confused with salesmanship, until tact, effrontery and prevarication have come to serve as a standard of efficiency, and unearned gain is accepted as the measure of productiveness.

Efficiency conduces to the common good, and is also a meritorious and commendable trait in the person who exercises it. But under the canons of self-help and pecuniary valuation the test of efficiency in economic matters has come to be, not technological mastery and productive effect, but proficiency in pecuniary management and the acquisition of wealth. Both in his own estimation and in the eyes of his fellows, the man who gains much does well; he is conceived to

do well both as a matter of personal efficiency and in point of serviceability to the common good. To "do well" in modern phrase means to engross something appreciably more of the community's wealth than falls to the common run. But since gains, and hence efficiency, are conceived in terms of price, it follows that the man, workman or businessman, who can induce his fellows to pay him well for his services or his goods is accounted efficient and serviceable; from which it follows that under this canon of pecuniary efficiency men are conceived to serve the common good somewhat in proportion as they are able to induce the community to pay more for their services than they are worth.

The businessman who gains much at little cost, who gets something for nothing, is rated, in his own as well as in his neighbours' esteem, as a public benefactor indispensable to the community's welfare, and as contributing to the common good in direct proportion to the amount which he has been able to draw out of the aggregate product. It is perhaps needless to call to mind that of this character are the main facts in the history of all the great fortunes; although the current accounts of their accumulation, being governed by pecuniary standards of efficiency and serviceability, dwell mainly on the services that have inured to the community from the traffic with which the great captains have interfered in their quest of gain. The prevalence of salesmanship, that is to say of business enterprise, and the consequent high repute of the salesmanlike activities and aptitudes in any community that is organised on a price system, is perhaps the most serious obstacle which the pecuniary culture opposes to the advance in workmanship. It intrudes into the most intimate and secret workings of the human spirit and contaminates the sense of workmanship in its initial move, and sets both the proclivity to efficient work and the penchant for serviceability at cross purposes with the common good.

But under the conditions engendered by the machine technology the scope of this pecuniary standard of workmanship has been greatly enlarged. . . . It is but a slight exaggeration to say that such transactions, which govern the course of industry, are carried out with an eye single to pecuniary gain—the industrial consequences, and their bearing on the community's welfare, being matters incidental to the transaction of business. In every-day phrase, under the rule of the current technology and business principles, industry is managed by businessmen for business ends, not by tech-

nological experts or for the material advantage of the community. And in this control of industrial affairs the smaller businessmen are in great part subject to the discretion of the larger.

By ancient habit, handed down from the days of handicraft and petty trade, this pecuniary management is conventionally conceived to be directed to the production of goods and services, and the businessman is still conventionally rated as a producer and his gains accepted as a measure of his productive efficiency. In conventional speech "producer" means the owner of industrial plant, not the workmen employed nor the mechanical apparatus about which they are employed. The "producers," "manufacturers," "captains of industry," whose interests are safeguarded by current legislation and by the guardians of law and order are the businessmen who have a pecuniary interest in industrial affairs; and it is their pecuniary interests that are so safeguarded, in the naive faith that the material interests of the community at large coincide with the opportunities for gain so secured to the businessmen.

THE TECHNOLOGICAL REVOLUTION AND THE COMMUNIST REVOLUTION¹

MARX & ENGELS²

Marx and Engels attempt to show here how the changes in technology resulting from the Industrial Revolution made production a social process, while leaving the means of appropriation in private hands. They hold that the technological revolution must be followed by a social and economic revolution to expropriate the private owners of the social instruments of production.

A spectre is haunting Europe—the spectre of Communism. All the Powers of old Europe have entered into a Holy Alliance to exorcise this spectre; Pope and Czar, Metternich and Guizot, French Radicals and German police-spies.

¹ This selection is reprinted from Karl Marx and Friedrich Engels, *The Manifesto of the Communist Party*, 1848.

² Karl Marx (1818–1883) and Friedrich Engels (1820–1895) were leading prophets of the communist faith and outstanding advocates of the overthrow of the economic system which Marx named capitalism.

Where is the party in opposition that has not been decried as communistic by its opponents in power? Where the opposition that has not hurled back the branding reproach of Communism against the more advanced opposition parties, as well as against its reactionary adversaries?

Two things result from this . . .

I. Communism is already acknowledged by all European Powers to be itself a Power.

II. It is high time that Communists should openly, in the face of the whole world, publish their views, their aims, their tendencies, and meet this nursery tale of the Spectre of Communism with a Manifesto of the party itself.

To this end, Communists of various nationalities have assembled in London and sketched the following Manifesto, to be published in the English, French, German, Italian, Flemish, and Danish languages.

I. BOURGEOIS AND PROLETARIANS

The history of all hitherto existing society is the history of class struggles.

Freeman and slave, patrician and plebeian, lord and serf, guild-master and journeyman, in a word, oppressor and oppressed, stood in constant opposition to one another, carried on uninterrupted, now hidden, now open fight, a fight that each time ended, either in a revolutionary reconstitution of society at large, or in the common ruin of the contending classes.

In the earlier epochs of history we find almost everywhere a complicated arrangement of society into various orders, a manifold gradation of social rank. In ancient Rome we have patricians, knights, plebeians, slaves; in the Middle Ages, feudal lords, vassals, guild-masters, journeymen, apprentices, serfs; in almost all of these classes, again, subordinate gradations.

The modern bourgeois society that has sprouted from the ruins of feudal society has not done away with class antagonisms. It has but established new classes, new conditions of oppression, new forms of struggle in place of the old ones.

Our epoch, the epoch of the bourgeoisie, possesses, however, this distinctive feature; it has simplified the class antagonisms. Society as a whole is more and more splitting up into two great hostile camps, into two great classes directly facing each other: Bourgeoisie and Proletariat.

From the serfs of the Middle Ages sprang the chartered burghers of the earliest towns. From these burgesses the first elements of the bourgeoisie were developed.

The discovery of America, the rounding of the Cape, opened up fresh ground for the rising bourgeoisie. The East Indian and Chinese markets, the colonization of America, trade with the colonies, the increase in the means of exchange and in commodities generally, gave to commerce, to navigation, to industry, an impulse never before known, and thereby, to the revolutionary element in the tottering feudal society, a rapid development.

The feudal system of industry, under which industrial production was monopolized by close guilds, now no longer sufficed for the growing wants of the new market. The manufacturing system took its place. The guild-masters were pushed on one side by the manufacturing middle class; division of labor between the different corporate guilds vanished in the face of division of labor in each single workshop.

Meantime the markets kept ever growing, the demand ever rising. Even manufacture no longer sufficed. Thereupon, steam and machinery revolutionized industrial production. The place of manufacture was taken by the giant Modern Industry, the place of the industrial middle-class, by industrial millionaires, the leaders of whole industrial armies, the modern bourgeois.

Modern industry has established the world-market, for which the discovery of America paved the way. This market has given an immense development to commerce, to navigation, to communication by land. This development has, in its turn, reacted on the extension of industry; and in proportion as industry, commerce, navigation, railways extended, in the same proportion the bourgeoisie developed, increased its capital, and pushed into the background every class handed down from the Middle Ages.

We see, therefore, how the modern bourgeoisie is itself the product of a long course of development, of a series of revolutions in the modes of production and of exchange. . . .

The bourgeoisie cannot exist without constantly revolutionizing the instruments of production, and thereby the relations of production, and with them the whole relations of society. Conservation of the old modes of production in unaltered form was, on the contrary, the first condition of existence for all earlier industrial classes. Constant revolutionizing of production, uninterrupted disturbance

of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois epoch from all earlier ones. All fixed, fast-frozen relations, with their train of ancient and venerable prejudices and opinions, are swept away, all new-formed ones become antiquated before they can ossify. All that is solid melts into the air, all that is holy is profaned, and man is at last compelled to face with sober senses, his real conditions of life, and his relations with his kind.

The need of a constantly expanding market for its products drives the bourgeoisie over the whole surface of the globe. It must elbow-in everywhere, settle everywhere, establish connections everywhere. . . .

The bourgeoisie, by the rapid improvement of all instruments of production, by the immensely facilitated means of communication, draws all, even the most barbarian nations, into civilization. The cheap prices of its commodities are the heavy artillery with which it batters down all Chinese walls, with which it forces the barbarians' intensely obstinate hatred of foreigners to capitulate. It compels all nations, on pain of extinction, to adopt the bourgeois mode of production; it compels them to introduce what it calls civilization into their midst, i.e., to become bourgeois themselves. In a word, it creates a world after its own image.

The bourgeoisie has subjected the country to the rule of the towns. It has created enormous cities, has greatly increased the urban population as compared with the rural, and has thus rescued a considerable part of the population from the idiocy of rural life. Just as it has made the country dependent on the towns, so it has made barbarian and semi-barbarian countries dependent on civilized ones, nations of peasants on nations of bourgeois, the East on the West.

The bourgeoisie keeps more and more doing away with the scattered state of the population, of the means of production, and of property. It has agglomerated population, centralized means of production, and has concentrated property in a few hands. The necessary consequence of this was political centralization. Independent, or but loosely connected provinces, with separate interests, laws, governments, and systems of taxation, became lumped together in one nation, with one government, one code of laws, one national class-interest, one frontier and one customs tariff.

The bourgeoisie, during its rule of scarce one hundred years, has created more massive and more colossal productive forces than have

all preceding generations together. Subjection of nature's forces to man, machinery, application of chemistry to industry and agriculture, steam-navigation, railways, electric telegraphs, clearing of whole continents for cultivation, canalization of rivers, whole populations conjured out of the ground—what earlier century had even a presentiment that such productive forces slumbered in the lap of social labor?

We see then the means of production and of exchange on whose foundation the bourgeoisie built itself up were generated in feudal society. At a certain stage in the development of these means of production and of exchange, the conditions under which feudal society produced and exchanged, the feudal organization of agriculture and manufacturing industry—in one word, the feudal relations of property—became no longer compatible with the already developed productive forces; they became so many fetters. They had to burst asunder; they were burst asunder.

Into their places stepped free competition, accompanied by a social and political constitution adapted to it, and by the economical and political sway of the bourgeois class.

A similar movement is going on before our own eyes. Modern bourgeois society with its relations of production, of exchange, and of property, a society that has conjured up such gigantic means of production and of exchange, is like the sorcerer, who is no longer able to control the powers of the nether world whom he has called up by his spells. For many a decade past, the history of industry and commerce is but the history of the revolt of modern productive forces against modern conditions of production, against the property relations that are the conditions for the existence of the bourgeoisie and of its rule. It is enough to mention the commercial crises that by their periodical return put on its trial, each time more threateningly, the existence of the entire bourgeois society. In these crises a great part not only of the existing products, but also of the previously created productive forces, are periodically destroyed. In these crises there breaks out an epidemic that, in all earlier epochs, would have seemed an absurdity—the epidemic of over-production. Society suddenly finds itself put back into a state of momentary barbarism; it appears as if a famine, a universal war of devastation, had cut off the supply of every means of subsistence; industry and commerce seem to be destroyed; and why? Because there is too much civilization, too much means of subsistence, too much industry, too much

commerce. The productive forces at the disposal of society no longer tend to further the development of the conditions of bourgeois property; on the contrary, they have become too powerful for these conditions by which they are confined, and as soon as they overcome these limitations they bring disorder into the whole of bourgeois society, endanger the existence of bourgeois property. The conditions of bourgeois society are too narrow to comprise the wealth created by them. And how does the bourgeoisie get over these crises? On the one hand by enforced destruction of a mass of productive forces; on the other, by the conquest of new markets, and by the more thorough exploitation of the old ones. That is to say, by paving the way for more extensive and more destructive crises, and by diminishing the means whereby crises are prevented.

The weapons with which the bourgeoisie felled feudalism to the ground are now turned against the bourgeoisie itself.

But not only has the bourgeoisie forged the weapons that bring death to itself; it has also called into existence the men who are to wield those weapons—the modern working class—the proletarians.

In proportion as the bourgeoisie—that is, as capital—is developed, in the same proportion is the proletariat, the modern working class, developed, a class of laborers who live only so long as they find work, and who find work only so long as their labor increases capital. These laborers, who must sell themselves piecemeal, are a commodity, like every other article of commerce, and are consequently exposed to all the vicissitudes of competition, to all the fluctuations of the market.

Owing to the extensive use of machinery and to division of labor, the work of the proletarians has lost all individual character, and, consequently, all charm for the workman. He becomes an appendage of the machine, and it is only the most simple, most monotonous, and most easily acquired knack that is required of him. Hence, the cost of production of a workman is restricted almost entirely to the means of subsistence that he requires for his maintenance, and for the propagation of his race. But the price of a commodity, and also of labor, is equal to its cost of production. In proportion, therefore, as the repulsiveness of the work increases the wage decreases. Nay more, in proportion as the use of machinery and division of labor increase, in the same proportion the burden of toil increases, whether by prolongation of the working hours, by increase of the

work enacted in a given time, or by increased speed of the machinery, and so forth.

Modern industry has converted the little workshop of the patriarchal master into the great factory of the industrial capitalist. Masses of laborers, crowded into factories, are organized like soldiers. As privates of the industrial army they are placed under the command of a perfect hierarchy of officers and sergeants. Not only are they the slaves of the bourgeois class and of the bourgeois state, they are daily and hourly enslaved by the machine, by the foreman, and, above all, by the individual bourgeois manufacturer himself. The more openly this despotism proclaims gain to be its end and aim, the more petty, the more hateful and the more embittering it is.

The less the skill and exertion or strength implied in manual labor, in other words, the more modern industry becomes developed, the more is the labor of men superseded by that of women. Differences of age and sex have no longer any distinctive social validity for the working class. All are instruments of labor, more or less expensive to use, according to their age and sex.

No sooner is the exploitation of the laborer by the manufacturer so far at an end that he receives his wages in cash, than he is set upon by the other portions of the bourgeoisie, the landlord, the shopkeeper, the pawnbroker, and so forth.

The lower strata of the middle class—the small tradespeople, shopkeepers and retired tradesmen generally, the handicraftsmen and peasants—all these sink gradually into the proletariat, partly because their diminutive capital does not suffice for the scale on which modern industry is carried on, and is swamped in the competition with the large capitalists, partly because their specialized skill is rendered worthless by new methods of production. Thus the proletariat is recruited from all classes of the population.

The proletariat goes through various stages of development. With its birth begins its struggle with the bourgeoisie. At first the contest is carried on by individual laborers, then by the workpeople of a factory, then by the operatives of one trade, in one locality, against the individual bourgeois who directly exploits them. They direct their attacks not against the bourgeois conditions of production, but against the instruments of production themselves; they destroy imported wares that compete with their labor, they smash machinery, they set factories ablaze, they seek to restore by force the vanished status of the workman of the Middle Ages.

At this stage the laborers still form an incoherent mass scattered over the whole country, and broken up by their mutual competition. . . .

But with the development of industry the proletariat not only increases in number; it becomes concentrated in greater masses, its strength grows and it feels that strength more. The various interests and conditions of life within the ranks of the proletariat are more and more equalized, in proportion as machinery obliterates all distinctions of labor, and nearly everywhere reduces wages to the same low level. The growing competition among the bourgeois, and the resulting commercial crises, make the wages of the workers ever more fluctuating; the unceasing improvement of machinery, ever more rapidly developing, makes their livelihood more and more precarious; the collisions between individual workmen and individual bourgeois take more and more the character of collisions between two classes. Thereupon the workers begin to form combinations (trade unions) against the bourgeois; they club together in order to keep up the rate of wages; they found permanent associations in order to make provision beforehand for these occasional revolts. Here and there the contest breaks out into riots.

Now and then the workers are victorious, but only for a time. The real fruit of their battle lies not in the immediate result, but in the ever expanding union of workers. This union is helped on by the improved means of communication that are created by modern industry, and that places the workers of different localities in contact with one another. It was just this contact that was needed to centralize the numerous local struggles, all of the same character, into one national struggle between classes. But every class struggle is a political struggle. And that union, to attain which the burghers of the Middle Ages with their miserable highways, required centuries, the modern proletarians, thanks to railways, achieve in a few years.

This organization of the proletarians into a class, and consequently into a political party, is continually being upset again by the competition between the workers themselves. But it ever rises up again, stronger, firmer, mightier. It compels legislative recognition of particular interests of the workers by taking advantage of the divisions among the bourgeoisie itself. Thus the Ten-Hours-Bill in England was carried.

Altogether collisions between the classes of the old society fur-

ther, in many ways, the development of the proletariat. The bourgeoisie finds itself involved in a constant battle—at first with the aristocracy; later on, with those portions of the bourgeoisie itself whose interests have become antagonistic to the progress of industry; at all times, with the bourgeoisie of foreign countries. In all these battles it sees itself compelled to appeal to the proletariat, to ask for its help, and thus to drag it into the political arena. The bourgeoisie itself, therefore, supplies the proletariat with its own elements of political and general education; in other words, it furnishes the proletariat with weapons for fighting the bourgeoisie.

Further, as we have already seen, entire sections of the ruling classes are, by the advance of industry, precipitated into the proletariat, or are at least threatened in their conditions of existence. These also supply the proletariat with fresh elements of enlightenment and progress.

Finally, in times when the class-struggle nears the decisive hour, the process of dissolution going on within the ruling class, in fact within the whole range of an old society, assumes such a violent, glaring character that a small section of the ruling class cuts itself adrift and joins the revolutionary class, the class that holds the future in its hands. Just as, therefore, at an earlier period, a section of the nobility went over to the bourgeoisie, so now a portion of the bourgeoisie goes over to the proletariat, and in particular, a portion of the bourgeois ideologists, who have raised themselves to the level of comprehending theoretically the historical movements as a whole.

Of all the classes that stand face to face with the bourgeoisie today the proletariat alone is a really revolutionary class. The other classes decay and finally disappear in the face of modern industry; the proletariat is its special and essential product.

The lower middle-class, the small manufacturer, the shopkeeper, the artisan, the peasant, all these fight against the bourgeoisie, to save from extinction their existence as fractions of the middle class. They are therefore not revolutionary, but conservative. Nay, more; they are reactionary, for they try to roll back the wheel of history. If by chance they are revolutionary, they are so only in view of their impending transfer into the proletariat; they thus defend not their present, but their future interests; they desert their own standpoint to place themselves at that of the proletariat.

The "dangerous class," the social scum, that passively rotting

mass thrown off by the lowest layers of the old society, may here and there be swept into the movement by a proletarian revolution; its conditions of life, however, prepare it far more for the part of a bribed tool of reactionary intrigue.

In the conditions of the proletariat, those of old society at large are already virtually swamped. The proletarian is without property; his relation to his wife and children has no longer anything in common with the bourgeois family relations; modern industrial labor, modern subjection to capital, the same in England as in France, in America as in Germany, has stripped him of every trace of national character. Law, morality, religion, are to him so many bourgeois prejudices, behind which lurk in ambush just as many bourgeois interests.

All the preceding classes that got the upper hand sought to fortify their already acquired status by subjecting society at large to their conditions of appropriation. The proletarians cannot become masters of the productive forces of society, except by abolishing their own previous mode of appropriation, and thereby also every other previous mode of appropriation. They have nothing of their own to secure and to fortify; their mission is to destroy all previous securities for and insurances of individual property.

All previous historical movements were movements of minorities, or in the interest of minorities. The proletarian movement is the self-conscious, independent movement of the immense majority. The proletariat, the lowest stratum of our present society, cannot stir, cannot raise itself up without the whole superincumbent strata of official society being sprung into the air.

Though not in substance, yet in form, the struggle of the proletariat with the bourgeoisie is at first a national struggle. The proletariat of each country must, of course, first of all settle matters with its own bourgeoisie.

In depicting the most general phases of the development of the proletariat, we have traced the more or less veiled civil war, raging within existing society, up to the point where that war breaks out into open revolution, and where the violent overthrow of the bourgeoisie lays the foundation for the sway of the proletariat.

Hitherto every form of society has been based, as we have already seen, on the antagonism of oppressing and oppressed classes. But in order to oppress a class, certain conditions must be assured to it under which it can at least continue its slavish existence. The

serf, in the period of serfdom, raised himself to membership in the commune, just as the petty bourgeois, under the yoke of feudal absolutism, managed to develop into a bourgeois. The modern laborer, on the contrary, instead of rising with the progress of industry, sinks deeper and deeper below the conditions of existence of his own class. He becomes a pauper, and pauperism develops more rapidly than population and wealth. And here it becomes evident that the bourgeoisie is unfit any longer to be the ruling class in society, and to impose its conditions of existence upon society as an over-riding law. It is unfit to rule, because it is incompetent to assure an existence to its slave within his slavery, because it cannot help letting him sink into such a state that it has to feed him, instead of being fed by him. Society can no longer live under this bourgeoisie; in other words, its existence is no longer compatible with society.

The essential condition for the existence, and for the sway of the bourgeois class, is the formation and augmentation of capital; the condition for capital is wage-labor. Wage-labor rests exclusively on competition between the laborers. The advance of industry, whose involuntary promoter is the bourgeoisie, replaces the isolation of the laborers, due to competition, by their revolutionary combination, due to association. The development of modern industry, therefore, cuts from under its feet the very foundation on which the bourgeoisie produces and appropriates products. What the bourgeoisie therefore produces, above all, are its own grave-diggers. Its fall and the victory of the proletariat are equally inevitable.

II. PROLETARIANS AND COMMUNISTS

In what relation do the Communists stand to the proletarians as a whole?

The Communists do not form a separate party opposed to other working-class parties.

They have no interests separate and apart from those of the proletariat as a whole.

They do not set up any sectarian principles of their own, by which to shape and mould the proletarian movement.

The Communists are distinguished from the other working class parties by this only: 1. In the national struggles of the proletarians of the different countries, they point out and bring to the front the common interests of the entire proletariat, independently of all

nationality. 2. In the various stages of development which the struggle of the working class against the bourgeoisie has to pass through, they always and everywhere represent the interests of the movement as a whole. . . .

The immediate aim of the Communists is the same as that of all the other proletarian parties—formation of the proletariat into a class, overthrow of the bourgeois supremacy, conquest of political power by the proletariat. . . .

The proletariat will use its political supremacy to wrest, by degrees, all capital from the bourgeoisie, to centralize all instruments of production in the hands of the state—that is, of the proletariat organized as a ruling class; and to increase the total productive forces as rapidly as possible. . . .

When, in the course of development, class distinctions have disappeared, and all production has been concentrated in the hands of a vast association of the whole nation, the public power will lose its political character. Political power, properly so called, is merely the organized power of one class for oppressing another. If the proletariat during its contest with the bourgeoisie is compelled, by the force of circumstances, to organize itself as a class, if, by means of a revolution, it makes itself the ruling class, and, as such, sweeps away by force the old conditions of production, then it will, along with these conditions, have swept away the conditions for the existence of class antagonisms, and of classes generally, and will thereby have abolished its own supremacy as a class.

In place of the old bourgeois society, with its classes and class antagonisms, we shall have an association in which the free development of each is the condition for the free development of all. . . .

The Communists disdain to conceal their views and aims. They openly declare that their ends can be attained only by the forcible overthrow of all existing social conditions. Let the ruling classes tremble at a Communistic revolution. The proletarians have nothing to lose but their chains. They have a world to win.

Working men of all countries, unite!

SECTION IV

Types of Markets: Competition

THE END OF THE 18TH CENTURY WAS A TIME OF change and the year 1776 was particularly epoch-making and epoch-marking. While America was in the throes of a political and economic revolution, the rising middle classes of France were preparing to launch their grand assault against the political and economic reaction of the landed aristocracy. In England, too, revolution was the order of the day, even though it was a revolution involving no violent show of physical force. There, too, the rising commercial and industrial classes were in revolt—attempting to rid themselves of the narrow restrictions of the mercantile system. Their prophet was Adam Smith; their bible: *The Wealth of Nations*; their faith: political and economic freedom for the individual. They became the leading advocates of the competitive price system, around which they built a body of doctrine that was destined to have effects far reaching beyond its time.

The new ideal of 1776 on both sides of the Atlantic was fundamentally the same. It was best summed up in the French phrase, "laissez-faire, laissez-passer," meaning essentially to leave alone. "That government governs best which governs least," wrote Thomas Jefferson. Yet neither he nor Adam Smith nor most of their contemporaries were anarchists;—it was simply that they wanted the government to assume a very limited role in the economy and, above all, not to control business. But what was to be put in place of the vacuum created by the disappearance of government regulation? The answer furnished by the revolutionaries of '76 was competition. Competition was to be a binding force which would act as a controlling influence over all buyers and sellers in the market, wherever they might be. It was to operate in promoting the general welfare under the guise of rational selfishness based on profit seeking. As each individual pursued his own selfish interest, the good of society would be enhanced. The emphasis was on the individual, for it was the riches of individuals that made up the wealth of nations.

The smooth operation of the new competitive philosophy as-

sumed the existence of certain conditions, of course. For one thing, there would have to be many buyers and sellers in the market; so many, in fact, that no one buyer or seller could exercise any significant influence on the total output of the industry or on the price of the industry's product. If this condition did not prevail, if buyers or sellers could team up with each other, monopoly would usurp power over the competitive price mechanism and deprive the public of the benefits guaranteed by it. Another condition considered to be necessary for the operation of a competitive economic order was that buyers and sellers would know the market—not perfectly, perhaps, but reasonably so. Still another condition was that there would be mobility in the market—freedom to move in and out of any legitimate occupation or industry. Finally, it was assumed that people were not in business for love or health, but mainly to make money. The will to work and to scheme and to drive hard bargains and to trade closely were to be the prime movers turning the wheels of production and exchange at an ever accelerating pace for the mutual enrichment of all. If the government would provide an orderly social framework within which this economic mechanism could function smoothly, all would be well. This was the belief of the 18th century. It was an ideal for which men and women often willingly gave their lives.

Although this ideal of *laissez-faire* and competition was to dominate the 19th and 20th centuries in many quarters of the globe, it was not to do so without many questions being raised. The people challenging certain aspects of the system did so on the grounds that the conditions postulated as necessary for the efficient operation of competition actually did not exist in the real world. Were there always many buyers and sellers in the market or was the single buyer or seller often at the mercy of powerful combinations in restraint of trade? Would businessmen not get together to talk things over and perhaps make certain agreements about what was to be bought and what was to be sold; after all, strategic scarcities in the market were known frequently to have produced magnificent profits. Especially would this be true, if merchandise of doubtful calibre could be pawned off on the unsuspecting customer, for he had little knowledge of the market. Besides, was not a "sucker born every minute"? What of this freedom to move—this mobility? How many people were willing to leave house and home in search of higher wages in some distant region; or to transfer their capital from an industry in

which they had worked a lifetime in response to a mere change in market prices; or to plant some new and untried crop, if for generations their land had been geared to the production of another crop? The existence of mobility was a fine thing to assume, but was such an assumption realistic? Furthermore, were these people—these hard-headed businessmen—as rational and intelligent as the theory of competition postulated them to be; or did they actually make decisions by rule of thumb or by habit or on the basis of a hunch? Did they always move into trades where high profits were to be earned and leave those in which losses threatened?

These were questions being raised in the face of changing technology. The Industrial Revolution, which we examined in the foregoing section, eventually resulted in great changes. Big business was getting bigger and mass production became the order of the day. This meant combinations and mergers and lobbying in legislative bodies to get special favors, subsidies and protective tariffs. The methods of competition were gradually transformed from what was once price competition to what is now sales and advertising competition. The ideals of Adam Smith and 1776 had undergone substantial modification and transformation. Before turning to an analysis of imperfect competition, however, let us be sure we understand the workings of a perfectly or purely competitive market.

CHAPTER 8

The Philosophy of Competition

THE PHILOSOPHY OF COMPETITIVE INDIVIDUALISM¹

U. S. CHAMBER OF COMMERCE²

The U. S. Chamber of Commerce here presents its views on the philosophy of the American competitive enterprise system and analyzes some of the criticisms leveled against that system.

What is the American competitive enterprise system? What is meant by free private enterprise? What criticisms are leveled against this system?

Are these criticisms against the system or against human nature as expressed through the system? Under some other economic system, would human nature express itself to the satisfaction of our critics? What alternative to our economic system is proposed by the critics?

Do the critics consciously or unconsciously compare the realities of our system with some system imagined to be perfect which has been worked out on paper? In foreign lands where other types of economic systems have been established, do the people gladly and voluntarily accept these systems or must they be maintained by abridging freedom of speech, of assembly, of the press and of action?

These are some of the questions which are discussed in what follows. It is important to try to understand our economic system, what changes are proposed and why, and what road we are traveling.

¹ This selection is reprinted by kind permission of the publishers from U. S. Chamber of Commerce, *The American Competitive Enterprise System*, 1947.

² The U. S. Chamber of Commerce is a commercial and industrial organization composed of persons, firms, corporations, trade associations, and representatives of local chambers of commerce.

OUR ECONOMIC SYSTEM DEFINED

Under our economic system, the government has confined its activities, at least until within the last decade or two, largely to keeping law and order, serving as umpire, enforcing competition, establishing the currency, and carrying on certain major activities such as highways, education, sanitation and a few others which were believed generally to be beyond the competence of individual enterprise.

Under the economic systems in some other lands, the government owns and operates the production system and makes all the major economic decisions.

Recognizing that no economic system can be adequately described if the role of government is left out, we nevertheless think of our free competitive private enterprise system as having the following major characteristics:

- (1) The natural resources and the instruments of production are for the most part owned and developed by private citizens, either individually or in groups.
- (2) The individual is left free within his means and ability to become job-holder, job-maker or self-employed.
- (3) The consumer, through his freedom of choice, directs production—determines what is to be produced, in what quantities, and in what form and quality and at what price.
- (4) Through this open opportunity and through the competitive motive, the productive work of society gets done. By harnessing the ambition to get ahead, the benefits of invention, of discovery and of the products of others are broadly shared by all groups in society.
- (5) A free economic society is essentially voluntary; directives, orders and regimentation are kept to a minimum.

This economic system may be described as a free market economy; the individuals are loosely knit together through voluntary cooperation under which each expresses his participation by his demand for and supplying of goods and services through the free pricing system.

What follows is, for the most part, an elaboration of the foregoing skeletonized description.

In contrast to the American system we find in collectivism a partial or complete displacement of private ownership by public or government ownership. Further, under collectivism the production,

distribution and exchange of goods are controlled by official agencies, with compensation made to individuals through governmental channels. The private earning of profits is eliminated. Competition among individually owned enterprises is supplanted by central government planning. Necessarily, directives and coercion replace voluntary action. . . .

ECONOMIC FREEDOM

If business is to operate on the principle of private enterprise, there must be a maximum of political and economic liberty. Each individual is free to undertake a business enterprise in the hope of gain—but also at the risk of loss. Both the worker and business owner make their own decisions for themselves whereas, under collectivism, both become servants of the state, required to do the state's bidding whether they wish to or not.

With no state-imposed restrictions upon his choice of occupation, the individual is much more free to select that work for which he is best suited, and that to which he will apply himself most willingly. This encourages a high and progressing level of productivity on the part of the individual as a factor in the national economic life. Freedom of enterprise to work, to save, to invest, and to manage, develops the spirit of individual economic independence, heightens the sense of individual responsibility, and induces those men with experience and means to venture into new economic enterprises or to expand their existing enterprises. All of these influences give an impetus and a forward movement to private economic activity, in sharp contrast to the routine of public administration.

There is no adequate substitute for personal independence and self-reliance. Some people look more and more to government for their security and freedom. But if my welfare depends on some remote government in a far away city, my security will depend on politics. This increases uncertainty and may increase insecurity.

MAINTENANCE OF COMPETITION

Of cardinal importance in the scheme of private enterprise is competition. Competition operates to bring about lower prices, better products, and better services, all for the enhancement of living standards and for the promotion of the welfare of individuals. It is a constant incentive to invention, to the perfection of manufacturing and distributing processes, and to the elimination of economic waste.

A free enterprise economy is one under which free men show enterprise.

Competition further acts to prevent monopolistic control—a control which under collectivism resides in the state, with only political means to try to prevent it from being misused for political ends. One of the primary reasons why England turned to socialism is that much of private business in England became cartelized, monopolistic and stagnant. The people then decided that the state might as well own and operate the monopolies. The human individual, whether as worker or businessman, has a strong tendency to insulate himself against the rigors of competition through various monopolistic practices.

An important role of the government is to keep open the channels of opportunity and to enforce the competitive motive, not to stifle it.

CONSUMER PREFERENCE

One important control, in the system of free enterprise, is exercised by the consumer. Every successful enterprise must produce a product or service so satisfactory to the free-choice consumer that he will purchase it in such volume and at such a price as will compensate for the labor, materials, and management and capital costs entering into it. The free consumer thus actually directs production; business managers and their employees are the servants of the consumers. Advertising can suggest but it cannot force the consumer to buy.

Consumer preference constitutes one of the exacting tests of industrial and commercial efficiency, and gives to the system of private enterprise a flexible and automatic check upon its successful operation. Consumer demand, both in the free national market and in the world market, determines the character and objectives of the entire productive mechanism. Similarly, it determines not only the value of goods but also the value of factories, of distributing organizations, and of supplementary services; and, further, determines the rate of interest. A factory or store which does not meet this test soon is on the way to the scrap heap.

ELIMINATION OF DEFECTS

Under every system some defects show up. Every system is run by human beings and, until human nature is perfected, we cannot expect a perfect economic system in practice.

There have been and still are weak spots in our society but they

are weaknesses calling for the cure rather than for the killing of the patient. As mentioned above, many of the imperfections in our economic order are automatically remedied through the operation of competitive enterprise, and through the force of consumer demand.

Defects in the system are also identified and cured through the application of industry's criticism of itself in its own self-interest, often through businessmen's organizations; the constant discussion in legislative halls of measures proposed for the elimination of actual or alleged defects; the administration of existing laws under democracy, for the elimination of weaknesses; and the constant contributions of scientific and economic thought to the improvement of our free economic order.

Probably the greatest threat to our economic system lies in periodic failure to operate at full capacity. Many factors account for the economic machine running down at times. But these depressions grow out of the very voluntary character of the system, usually coming after a boom when consumer wants are less intense.

So long as everyone spends or invests his current income regularly, production will always finance consumption by providing income in the form of wages, salaries, rents, interest and dividends. But the free citizens and businesses may decide to hoard a part of their income, thus causing a break in the circuit flow of income and expenditure.

A flexible system of prices and wages, constant adaptation to facilitate the clearing of both the goods and the labor market, would go a long way toward preventing depression. Rigid wages, inflexible prices and the immobility of both capital and labor tend to accentuate depression.

Private thrift for the rainy day, coupled with social security provisions, can do much to reduce the hardships of such unemployment as has so far proven to be unpreventable. Meantime every effort is being made by business and other leaders to find ways and means of preventing the economy from running periodically in low gear.

Under the system of private initiative the primary function of government is to preserve opportunity for individual enterprise, to protect against crime and predatory incursion and to preserve a sound money system. Where necessary, government sets up regulation to prevent actions inimical to the public interest; but at times such regulation dries up private initiative and investment, which may do more harm than good, in that case.

Governments have established many checks and balances. Among limitations upon private enterprise might be mentioned, in this country, banking laws, control of securities issues, the antitrust laws, laws governing shipment of commodities and regulating public utilities which operate best as monopolies, child labor legislation, regulations in the interest of public health, legislation affecting the health of workers and relating to their working conditions. . . .

PROFIT EXPECTATION AND INVESTMENT

Profit—often a target of the critics of the system of private initiative—is actually the lifeblood of industry's expansion and the welfare of the people. The wage motive will cause a man to take a job, providing the profit motive first creates the job. It required at pre-war prices about \$5,000 to \$6,000 investment in plant facilities and working capital to create one self-sustaining job in our economy.

The capital thus created seeks new usefulness, creates new enterprises, expands existing enterprises, and thereby creates ever-widening circles of employment for an expanding population. Production for profit in America has created for the people's use the greatest volume of goods and services in the history of mankind.

Profit expectation has, throughout history, been the most potent incentive to economic advancement. Whether privately owned or state-owned, capital is essential to business conduct, improvement and expansion; but the use of state-owned capital, particularly under dictatorships, too frequently serves a political rather than an economic end and genuine economic progress is impaired.

An individual competitive enterprise system, relying on thousands and even millions of separate establishments, each anxious to survive and grow, should always be able to outproduce a system of government monopolies under central control of bureaus. . . .

AUTOMATIC COORDINATION

An American citizen can travel in normal times to any of our cities and find almost anything he wants. Who planned it that way? How can he be sure that he can get what he wants when he gets there?

A decentralized economic system such as ours is sometimes said to be planless, unordered and loose-jointed. Yet this is its strength, because it is through free consumer choice, the profit and the com-

petitive motive, that human wants get satisfied. It is this drive to get ahead, to make a dollar which puts within reach in every hamlet, town and city the thousands of commodities and services which the consumer wants. Thus there is order or planning in a free society, without bureaucratic or centralized governmental planning and directives.

This vast system of interrelations, this system of producing and distributing, is tied together by the mutual wants and productive capacity of the people everywhere. Producers are competing everywhere for consumers' dollars.

A rise in the price of woolen fabrics affects the demand and the supply of hundreds of other products. Increasing the supply of mutton may have an effect on the demand and therefore on the price of pork and other products. A competitive free enterprise economy is a dynamic system—change and more change always taking place. It puts a strong premium on the person with resilience, flexibility and adaptive power.

This is one reason why it is so important that prices be free prices, always ready to rise a little here and fall a little there. Flexible prices, personal incentives, the profit and the wage motive—these are essentials if the economic system is to perform its important task of providing a steady flow of goods and services in every village, town and city and providing steady productive jobs for those who do not find self-employment or who do not become job-makers.

The freedom and flexibility of the private initiative system provides an automatic mechanism that distributes labor and capital funds, and stimulates management and inventive genius so as normally to keep the economic order operating at high efficiency. . . .

PROGRESS UNDER PRIVATE INITIATIVE

Economic systems, based on the principle of private initiative, have been responsible for the great industrial, commercial and cultural advances made during the last century by America and a few of the nations of Europe. Under conditions of free private operation, we have witnessed great advances in production, distribution, transportation, communication, banking, insurance and the hundred and one other services that together have brought to the citizens of today a steady rise in the productivity of the joint efforts of management and labor, making good wages possible.

Furthermore, instead of working from sunrise to sunset, as our

forefathers did, we are able in 40 hours work of the 168 hour week to enjoy a high and rising standard of living.

Workers, even at the depths of the recent depression, generally, had better houses, better clothing, better food, better education, better protection against disease and risk, better pay for shorter hours, greater opportunities for leisure and enjoyment, and wider facilities for building up economic security against the future than a generation or more ago. . . .

No claim is made that improvements could have occurred only under the existing economic system; but, in considering the needs and opportunities of our country, it must be in the light of these established merits of our American system, proven by generations of substantial accomplishment, that we should examine the theoretical standards and the work to date of the collectivist and the limitations upon the ordinary citizen under socialism and under a dictatorship.

POLITICAL FREEDOM AND PRIVATE ENTERPRISE

Man wants protection not only from autocratic government but also from private tyrants or private power. All power corrupts and absolute power corrupts absolutely.

Under a system of private competitive enterprise, power is more diffused than under any other system yet devised by man. In our country none of the millions of separate business establishments can have much enduring power over any of us. Freedom to work, to save, to invest and to manage is strongly encouraged by this multiplicity of business firms. There is strong evidence to support the view that if we are to retain our personal and political freedom, the best safeguard is a highly diversified economic system, with millions of establishments, more millions of owners and a constant opportunity to launch still more enterprises.

Once the government becomes the chief employer owning or controlling, either directly or indirectly, all or most of the instruments of production, it appears likely that the political and economic issues and conflicts over production, distribution, wages and income will be too great to be consistent with the democratic mood or the democratic method.

Even under partial socialization such as the Post Office, the average citizen feels utterly ineffective in protest; he accepts what is offered. To run the Post Office democratically—that is by all the people—is unthinkable. Yet there it is—a monopoly—and we have

to accept its services and prices, without knowing whether it is run efficiently or inefficiently because we have no point of comparison.

If the government owned and operated the transportation system, the factories and farms, the actual conduct of these enterprises would be as far removed from the control of the people as is the Post Office now.

But if all industry were socialized, our lives would be deeply affected by these government monopolies and it is probable that there would be so many conflicting points of view, so many conflicting interests to placate that the government would be forced to insulate itself against criticism and against recall. This explains in part why many governments of foreign lands when they took over the major industries also took over sooner or later the radio, newspapers, other publications and education. Without controlling thought and ideas, a centrally planned and operated economic system cannot be made to function effectively.

SOCIALISM BY STAGES OR BY DEFAULT?

The avowed socialists and communists in the United States number substantially less than one per cent of the population. Yet many people are "a little socialistic."

In fact, few of us oppose government ownership of highways, libraries and parks. Yet we also like to see private means of travel by air, by sea and on land. We do not think the government should own all the libraries or even have a monopoly of educational institutions. Private education in the United States in the grade, secondary schools as well as at the higher levels, has served as a strong stimulus to and a check upon public education.

But how far can we safely go in socialization? The answer appears to be—Not very far. In most European countries the socialization process, even before the first World War, had gone much farther than here. Subsequently, and especially after World War II, socialization has grown apace in most of the countries of Europe and Asia. One reason for this trend is that the government, when it takes control of one industry, does not like to face the competition of substitute industries or near-substitutes. Thus if the government takes control of the railways, it soon finds it advisable to take control of trucks, buses and airlines.

Businessmen closely observing this "chain reaction" often appear

a little doctrinaire in opposing any and all socialism. But are they not right in doing so? A little socialism may lead to a little more and in time this step by step process leads to the government taking over all enterprises, with the subsequent collapse of political and personal freedom. This is a matter that should be given most careful thought before endorsing any socialization.

Equally dangerous may be the constant increase in government intervention in the free sector of society. Business can be regulated or taxed to death. Governmental price-fixing in agriculture, by driving prices above or below the market rate, has helped to assure from time to time permanent unmanageable surpluses or shortages, causing demands for further intervention.

Government intervention in the relations between management and labor may discourage investment and even the continued operation of existing private businesses.

If the life of the businessman is made difficult, few of us will want to become employers and nearly all of us will prefer to be on some one else's payroll. Our schools could do a great deal to encourage more of their pupils to become job-makers, because if all of us want to get on somebody's payroll and none of us want to create payrolls, of course, there will be unemployment.

Without investment there can be no productive self-sustaining jobs. Yet to invest one's savings in fixed and specialized brick and mortar, machines and tools, and other job-making facilities, means that the only way in which such an investment can be recovered is through the earning power of the assets. Furthermore, unless we can sustain a fairly steady rate of such investment in job-making facilities it will be difficult for our young people to find useful jobs and those who lose jobs in declining or defunct industries to get other satisfactory employment.

Therefore, if socialism threatens to come upon us, or if the political conditions are uncertain and hostile to business and investment, the incentive to invest in job-making facilities may decline to the point where we not only have depression but permanent stagnation. Then the people may demand drastic action, socialism, communism or fascism—"Anything would be better"—might become the slogan.

The more deeply the government concerns itself with economic issues and problems, the more the people will feel forced to organize themselves into pressure groups in order to assure that they will share

in whatever "loot" the government has to offer, or at least to be protected. As this process of government by pressure grows, and as the government more and more replaces the free and open market, the less well will the economic system function. This is true because every price is related to every other price; every government action affects other prices and other groups.

A mixed economy, part free and part controlled, probably cannot long endure. It makes an unstable economy, always inviting further intervention and stirring up people to demand further action. That is why it is so important to allow a free economy to function effectively and not rely on group interference, either private or governmental.

CONCLUSION

The free competitive private enterprise system has had a long evolutionary development. It was not a system conceived by some dreamer or planner; rather, it grew out of the nature and needs of man. Like those through whom it operates it is not perfect. We should always endeavor to strengthen its merits and virtues and correct its weaknesses without destroying its incentives and sanctions. Its strong points outweigh its weaknesses so far that few Americans are willing to scrap it in favor of some unknown, nebulous over-all planning or socialist system.

It is essentially a voluntary system resting on free voluntary action and incentives. Destroy its incentives by excessive or uncertain taxation, hostile political and social developments, remove from it the essential political and constitutional stability of just and fair government, and it will wither away, giving place possibly to some centrally planned dictatorial system.

If the American people can maintain an understanding of its accomplishments, what it has yet to contribute, and what we all must do to keep this voluntary way of life alive, it should stand up against all competitors and continue to deliver an ever-rising standard of living to all of us.

THE GUIDING POWER OF THE UNSEEN HAND¹ADAM SMITH²

Adam Smith here argues for allowing individuals to pursue selfish ends, for in so doing they will automatically be led by the invisible hand to promote the social welfare.

Every individual is continually exerting himself to find out the most advantageous employment for whatever capital he can command. It is his own advantage, indeed, and not that of the society, which he has in view. But the study of his own advantage naturally, or rather necessarily, leads him to prefer that employment which is most advantageous to the society . . .

The produce of industry is what it adds to the subject or materials upon which it is employed. In proportion as the value of this produce is great or small, so will likewise be the profits of the employer. But it is only for the sake of profit that any man employs a capital in the support of industry; and he will always, therefore, endeavour to employ it in the support of that industry of which the produce is likely to be of the greatest value, or to exchange for the greatest quantity either of money or of other goods.

But the annual revenue of every society is always precisely equal to the exchangeable value of the whole annual produce of its industry, or rather is precisely the same thing with that exchangeable value. As every individual, therefore, endeavours as much as he can both to employ his capital in the support of domestic industry, and so to direct that industry that its produce may be of the greatest value; every individual necessarily labours to render the annual revenue of the society as great as he can. He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By preferring the support of domestic to that of foreign industry, he intends only his own security; and by directing

¹ This selection is reprinted from Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776, Book IV, Chapter 2.

² Adam Smith (1723-1790) was sometime professor of logic and later moral philosophy in the University of Glasgow, and finally commissioner of customs at Edinburgh. He is regarded as the founder of the Classical school of economics.

that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. Nor is it always the worse for the society that it was no part of it. By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it. I have never known much good done by those who affected to trade for the public good. It is an affectation, indeed, not very common among merchants, and very few words need be employed in dissuading them from it.

What is the species of domestic industry which his capital can employ, and of which the produce is likely to be of the greatest value, every individual, it is evident, can, in his local situation, judge much better than any statesman or lawgiver can do for him. The statesman, who should attempt to direct private people in what manner they ought to employ their capitals, would not only load himself with a most unnecessary attention, but assume an authority which could safely be trusted, not only to no single person, but to no council or senate whatever, and which would nowhere be so dangerous as in the hands of a man who had folly and presumption enough to fancy himself fit to exercise it.

To give the monopoly of the home-market to the produce of domestic industry, in any particular art or manufacture, is in some measure to direct private people in what manner they ought to employ their capitals, and must, in almost all cases, be either a useless or a hurtful regulation. . . .

THE REGULATORY POWER OF COMPETITIVE PRICES¹

N.A.M.²

The NAM here views the free competitive price mechanism as superior to governmental control in regulating the economy.

In the analysis up to this point we have discussed the organization and operation of the economic system as though by some means everything in the long run always worked out to the best advantage of society—as though all of us in our economic lives were imbued with a strong social conscience. Unfortunately, that is not true. Economic activities for the most part are undertaken for selfish gain. By and large, therefore, each person, at least within limits, is motivated not by what is best for society as a whole but by what will yield the greatest benefits to himself. Actually, it is well that this is so. Without the possibility of individual gain, most of us would make much less effort than we do. The problem, therefore, is how we can protect this incentive which leads each of us constantly to strive to improve his position, while we also make sure that society gains the greatest possible benefits. This is the problem of the regulation of our economic system. Such regulation takes two forms: by government and by competition.

Of these two types of regulation *competition* is by all odds the more important. In fact, it is safe to say that competition is the real “regulator” of our economy, and so-called “government regulation” is, or at least should be, nothing more than an effort to strengthen and make more effective the regulation by competition. In other words, freedom of competition truly is one of the basic principles of the individual enterprise system. Without competition it is inconceivable

¹ This selection is reprinted by kind permission of the publishers from The Economic Principles Commission of the NAM, *The American Individual Enterprise System*, New York: McGraw-Hill Book Company, Inc., 1946, Volume I, pages 57–60.

² The National Association of Manufacturers is an employer association which lists as its objectives “the promotion of industry and commerce, the improvement of employer-employee relations and the protection of individual liberties and rights of all.”

that the enterprise system could long exist and, to the extent it is curtailed, either through government action or by conspiracies in restraint of trade, the public loses the greatest assurance it has, or can have, that its interest will be protected.

Now competition is not just the effort of two manufacturers to undersell each other in the open market. There is competition whenever more than one person is offering a good or service for sale and the terms, price, and conditions at which such good or service is offered are determined and controlled solely by the seller acting independently of all other sellers. More briefly stated, there is competition whenever there is more than one seller and each is free to determine the price and conditions at which he will offer his goods or services. We may have competition, therefore, in prices, in quality, in salesmanship, in service, in credit, in courtesy, in packaging—in short, in any phase which may possibly influence a potential buyer in making his selection of what and where to buy.

As long as there is such competition, it is impossible for a seller, at least more than temporarily, to take advantage of a buyer. If a particular seller's prices are higher than those of someone else offering merchandise of the same quality, the buyer simply transfers his trade to the seller who offers better bargains or gives better service. Furthermore, and equally important, when there is competition, the market is never safe for a seller. A dealer or manufacturer, through sound policies, may build a substantial clientele, but if there is freedom of competition, another dealer or manufacturer may come along and through still more efficient operations take the entire clientele away. Or an organization may work for years developing a process for making a given article, only to have everything it has done become obsolete overnight by someone else's discovery of a still more efficient method of producing the same article.

And so it goes, year after year, as long as we have freedom of competition. In summary form, it may be said that competition

- (1) tends to assure that goods and services will be produced and distributed at the lowest possible cost;
- (2) tends to assure that profits will be held to a minimum, because prices have to be kept down;
- (3) tends to assure that the energy and raw materials and productive capacity of the nation will be used for providing those goods and services which the public wants and in proportion to the relative demands of the public as reflected in the market place;

- (4) tends to assure that each factor in production will be paid, through wages, rent, interest, or profits, in harmony with the public's estimate of the contribution it makes;
- (5) assures that a constant effort will be made to widen the choice of goods and services offered the public;
- (6) assures that a constant effort will be made to improve the attractiveness of goods offered for sale;
- (7) assures freedom of opportunity, by making it possible for anyone at any time to enter any line of business he desires for which he has the necessary capital; and
- (8) assures free and continuous progress and a gradually improving scale of living, through the production of more and more kinds of goods, of better and better quality, at prices which a large and larger proportion of the public can afford to pay.

In a word, from the point of view of the public welfare, competition serves as a regulator and reducer of prices, as an incentive to improved production efficiency, as a guarantor that we shall get what we want, and as a protector of the freedom of opportunity.

Because of the effectiveness of competition in the performance of this regulatory function, we have not felt it necessary through most of our history to rely heavily upon *government regulation*. Rather . . . our general policy has been to leave the individual the maximum of freedom. In other words, the public has not regarded regulation as an authorization for the government to play the game itself, but simply as a means of protecting and enhancing the public welfare without at the same time impairing our system of individual enterprise.

A CRITIQUE OF LAISSEZ-FAIRE¹JOHN MAYNARD KEYNES²

Mr. Keynes here contends that competition is a lethargic monster which has ruled over us by hereditary right rather than by personal merit.

Economists, like other scientists, have chosen the hypothesis from which they set out, and which they offer to beginners, because it is the simplest, and not because it is the nearest to the facts. Partly for this reason, but partly, I admit, because they have been biased by the traditions of the subject, they have begun by assuming a state of affairs where the ideal distribution of productive resources can be brought about through individuals acting independently by the method of trial and error in such a way that those individuals who move in the right direction will destroy by competition those who move in the wrong direction. This implies that there must be no mercy or protection for those who embark their capital or their labour in the wrong direction. It is a method of bringing the most successful profit-makers to the top by a ruthless struggle for survival, which selects the most efficient by the bankruptcy of the less efficient. It does not count the cost of the struggle, but looks only to the benefits of the final result which are assumed to be lasting and permanent, once it has been attained. The object of life being to crop the leaves off the branches up to the greatest possible height, the likeliest way of achieving this end is to leave the giraffes with the longest necks to starve out those whose necks are shorter.

Corresponding to this method of attaining the ideal distribution of the instruments of production between different purposes, there is a similar assumption as to how to attain the ideal distribution of what is available for consumption. Each individual will discover what amongst the possible objects of consumption *he* wants most by the

¹ This selection is reprinted by kind permission of the publishers from John Maynard Keynes, *Laissez-Faire and Communism*, New York, New Republic Inc., 1926, pages 39-53.

² John Maynard Keynes (1883-1946) was sometime fellow in Kings College, Cambridge, outstanding British economist and statesman, and is regarded as one of the most controversial figures in the history of 20th century economic thought.

method of trial and error "at the margin," and in this way not only will each consumer come to distribute his consumption most advantageously, but each object of consumption will find its way into the mouth of the consumer whose relish for it is greatest compared with that of the others, because that consumer will outbid the rest.

Thus, if only we leave the giraffes to themselves, (1) the maximum quantity of leaves will be cropped because the giraffes with the longest necks will, by dint of starving out the others, get nearest to the trees; (2) each giraffe will make for the leaves which he finds most succulent amongst those in reach; and (3) the giraffes whose relish for a given leaf is greatest will crane most to reach it. In this way more and juicier leaves will be swallowed, and each individual leaf will reach the throat which thinks it deserves most effort.

This assumption, however, of conditions where unhindered natural selection leads to progress, is only one of the two provisional assumptions which, taken as literal truth, have become the twin buttresses of *laissez-faire*. The other one is the efficacy, and, indeed, the necessity, of the opportunity for unlimited private money-making as an *incentive* to maximum effort. Profit accrues, under *laissez-faire*, to the individual who, whether by skill or good fortune, is found with his productive resources in the right place at the right time. A system which allows the skilful or fortunate individual to reap the whole fruits of this conjuncture evidently offers an immense incentive to the practice of the art of being in the right place at the right time. Thus one of the most powerful of human motives, namely, the love of money, is harnessed to the task of distributing economic resources in the way best calculated to increase wealth.

The parallelism between economic *laissez-faire* and Darwinianism . . . is now seen, as Herbert Spencer was foremost to recognise, to be very close indeed. Just as Darwin invoked sexual love, acting through sexual selection, as an adjutant to Natural Selection by competition to direct evolution along lines which should be desirable as well as effective, so the individualist invokes the love of money, acting through the pursuit of profit, as an adjutant to Natural Selection, to bring about the production on the greatest possible scale of what is most strongly desired as measured by exchange value.

The beauty and the simplicity of such a theory are so great that it is easy to forget that it follows not from the actual facts, but from an incomplete hypothesis introduced for the sake of simplicity. The conclusion that individuals acting independently for their own advan-

tage will produce the greatest aggregate of wealth, depends on a variety of unreal assumptions to the effect that the processes of production and consumption are in no way organic, that there exists a sufficient foreknowledge of conditions and requirements, and that there are adequate opportunities of obtaining this foreknowledge. For economists generally reserve for a later stage of their argument the complications which arise—(1) when the efficient units of production are large relatively to the units of consumption, (2) when overhead costs or joint costs are present, (3) when internal economies tend to the aggregation of production, (4) when the time required for adjustments is long, (5) when ignorance prevails over knowledge, and (6) when monopolies and combinations interfere with equality in bargaining—they reserve, that is to say, for a later stage their analysis of the actual facts. Moreover, many of those who recognise that the simplified hypothesis does not accurately correspond to fact conclude nevertheless that it does represent what is “natural” and therefore ideal. They regard the simplified hypothesis as health, and the further complications as disease.

There are also other considerations, which rightly bring into the calculation the cost and character of the competitive struggle itself, and the tendency for wealth to be distributed where it is not appreciated most. If we have the welfare of the giraffes at heart, we must not overlook the sufferings of the shorter necks who are starved out, or the sweet leaves which fall to the ground and are trampled underfoot in the struggle, or the overfeeding of the long-necked ones, or the evil look of anxiety or struggling greediness which overcasts the mild faces of the herd.

The principles of *laissez-faire* have had other allies besides economic text-books. They have been reinforced by the poor quality of the opponent proposals—Protectionism on one hand, and Marxian Socialism on the other. Yet these doctrines are both characterised, not only or chiefly by their infringing the general presumption in favour of *laissez-faire*, but by mere logical fallacy. Both are examples of poor thinking, of inability to analyse a process and follow it out to its conclusion. The arguments against them, though reinforced by the principle of *laissez-faire*, do not strictly require it. Of the two, Protectionism is at least plausible, and the forces making for its popularity are nothing to wonder at. But Marxian Socialism must always remain a portent to the historians of Opinion—how a doctrine so illogical and so dull can have exercised so powerful and enduring

an influence over the minds of men, and, through them, the events of history. At any rate, the obvious scientific deficiencies of these two schools greatly contributed to the prestige and authority of of nineteenth century *laissez-faire*.

Nor has the most notable divergence into centralised social action on a great scale—the conduct of the late war—encouraged reformers or dispelled old-fashioned prejudices. There is much to be said on both sides. War experience in the organisation of socialised production has left some observers anxious to repeat it in peace conditions. War socialism unquestionably achieved a production of wealth on a scale far greater than we ever knew in Peace, for though the goods and services delivered were destined for immediate and fruitless extinction, none the less they were wealth. Nevertheless the dissipation of effort was also prodigious, and the atmosphere of waste and not counting the cost was disgusting to any thrifty or provident spirit.

Finally, Individualism and *laissez-faire* could not, in spite of their deep roots in the political and moral philosophies of the late eighteenth and early nineteenth centuries, have secured their lasting hold over the conduct of public affairs, if it had not been for their conformity with the needs and wishes of the business world of the day. They gave full scope to our erstwhile heroes, the great business men. "At least one-half of the best ability in the Western world," Marshall used to say, "is engaged in business." A great part of "the higher imagination" of the age was thus employed. It was on the activities of these men that our hopes of Progress were centred. "Men of this class," Marshall wrote, "live in constantly shifting visions, fashioned in their own brains, of various routes to their desired end; of the difficulties which Nature will oppose to them on each route, and of the contrivances by which they hope to get the better of her opposition. This imagination gains little credit with the people, because it is not allowed to run riot; its strength is disciplined by a stronger will; and its highest glory is to have attained great ends by means so simple that no one will know, and none but experts will even guess, how a dozen other expedients, each suggesting as much brilliancy to the hasty observer, were set aside in favour of it. The imagination of such a man is employed, like that of the master chess-player, in forecasting the obstacles which may be opposed to the successful issue of his far-reaching projects, and constantly rejecting brilliant suggestions because he has pictured to himself the counter-strokes to them.

His strong nervous force is at the opposite extreme of human nature from that nervous irresponsibility which conceives hasty Utopian schemes, and which is rather to be compared to the bold facility of a weak player, who will speedily solve the most difficult chess problem by taking on himself to move the black men as well as the white."

This is a fine picture of the great Captain of Industry, the Master-Individualist, who serves us in serving himself, just as any other artist does. Yet this one, in his turn, is becoming a tarnished idol. We grow more doubtful whether it is he who will lead us into Paradise by the hand.

These many elements have contributed to the current intellectual bias, the mental make-up, the orthodoxy of the day. The compelling force of many of the original reasons has disappeared, but, as usual, the vitality of the conclusions outlasts them. To suggest social action for the public good to the City of London is like discussing the *Origin of Species* with a Bishop sixty years ago. The first reaction is not intellectual, but moral. An orthodoxy is in question, and the more persuasive the arguments the graver the offence. Nevertheless, venturing into the den of the lethargic monster, at any rate I have traced his claims and pedigree so as to show that he has ruled over us rather by hereditary right than by personal merit.

CHAPTER 9

The Economics of Competition

COMPETITION IN THE COTTON-TEXTILE INDUSTRY: A CASE STUDY ¹

LLOYD G. REYNOLDS ²

Professor Reynolds here explains the actual workings of a typical competitive industry. He points out the respects in which there is little congruence between the theoretical assumptions and the practical operation of the competitive price mechanism.

The central proposition in the theory of perfect competition is that, given sufficient time for construction or abandonment of plant capacity, the price of any product tends toward the average total cost of producing it (including "normal" profits) in the marginal firm. If the price rises above this level, new firms will enter the industry and existing firms will undertake plant expansion. If the price falls below this level, marginal firms will withdraw from the industry and other firms will reduce their scale of operations.

The assertion that an abnormally profitable price will induce construction of additional plant has not been seriously doubted by "practical" men. Criticism has usually been directed against the other half of the proposition. Prices below the equilibrium level do not, it is said, induce an adequate reduction of plant capacity, or at least do not induce this reduction as rapidly as would be desirable. This view is asserted with special force by members of any competitive industry which, because of a decline in demand or unwise overbuilding of plants, finds itself with abnormally low earnings. The industry, should not, it is contended, be forced to endure low earnings for years or decades as it struggles toward a new equilibrium which exists

¹ This selection is reprinted by kind permission of the publishers and the author from Lloyd G. Reynolds, "Cut-Throat Competition," *American Economic Review*, Volume XXX, No. 4, December, 1940, pages 736-747.

² Lloyd George Reynolds (1910-) is now professor of economics and associate director of the Labor Management Center, Yale University.

only in the minds of economic theorists. Action should be taken—preferably by the industry but at worst by the government—to control production and fix prices at a reasonable level. The object of this article is to examine this line of argument with particular reference to the experience of the cotton textile industry.

Under perfect competition, the persistence of subnormal profits over an extended period indicates that the capacity of the fixed factors in the industry is excessive relative to the level of demand. Excess capacity may be said to exist when, if all plants in the industry were to be used to capacity, the marginal firm would earn less than normal profits.¹ Excess capacity is, of course, not the same thing as *unused* capacity; the latter term may refer either to an industry or to an individual plant, while the former can refer only to an industry. The excess capacity of an industry at a given time is not the amount of idle plant but rather the amount of plant which, if withdrawn from production, would raise prices enough to restore normal profits for the marginal firm.

The proposition under examination here is that any excess capacity which may develop in a competitive industry will tend, over a period of time, to be eliminated through withdrawal of plants from the industry. As capacity shrinks, the downward pressure on prices will be relieved and profits will rise once more toward a normal level.

One possible source of confusion may be removed at the outset. The fact that bankrupt companies can be reorganized and resume production with lower fixed charges is often said to make the period of adjustment longer than classical writers supposed. This argument seems to rest on a misunderstanding. Marshall stated clearly that a plant will continue to be operated so long as its output returns any surplus above prime costs, i.e., so long as the fixed assets have any value whatever. If the business is an individual proprietorship, as most classical writers tacitly assumed, earnings can fall and the value of assets shrink without legal proceedings. If, however, the entrepreneur is a corporation which has issued securities bearing fixed rates of interest, legal recognition of a reduced rate of earnings on these securities requires reorganization of the company. Successive reor-

¹ By the capacity of a plant is meant that rate of operation which would minimize average total cost. Capacity in this sense is not fixed, but will vary with changes in the costs of the factors of production. For a good discussion of the possible meanings of "capacity" and "excess capacity," see J. M. Cassels, "Excess Capacity and Monopolistic Competition," *Quarterly Journal of Economics*, May, 1937.

ganizations enable the company to continue in production until its net earnings fall to zero, when there is no possibility of rehabilitating it through further reorganizations. All this is quite in accord with Marshallian theory. Reorganization is simply a means of restoring to the corporation something of the flexibility of the proprietorship, and thus assuring it approximately the same chance of survival.

II

The cotton textile industry, which probably provides a closer approximation to perfect competition than any other manufacturing industry in the United States, affords an interesting test of the theoretical conclusions. Strictly speaking, the industry cannot be considered as a unit because of the great variety of its products. The discussion which follows relates chiefly to the principal product—grey cotton print cloth. Most print cloth is sold on the Worth Street market in New York, through selling agents representing the mills, to “convertors” who have the cloth dyed and printed and resell it to garment manufacturers, wholesalers, and retailers.

Print cloth is sold in a few standard grades, based on weight and closeness of weave, and trademarking and advertising are unknown. The convertor is necessarily an expert judge of cloth, and advertising appeals would have little effect on him. The number of buyers and sellers is relatively large. There are several hundred producers of print cloth, and no mill produces more than a few per cent of the total output. The optimum scale of plant is small relative to aggregate demand for the product. The average southern cotton mill has about 30,000 spindles out of the 25 million in the industry. While some mills are much larger, it is doubtful whether expansion beyond 50,000 spindles brings any reduction in unit costs. The profits reports of the Federal Trade Commission indicate that the earnings of small mills are at least as high as, and perhaps higher than, those of the largest producers.

Entrance to the industry is unusually easy. Manufacturers of textile machinery gladly provide long-term credits in order to find a market for their product. Many local Chambers of Commerce, particularly in the South, have undertaken to raise capital for proposed textile companies in order to induce them to locate in the town. Tax reductions and other concessions have been freely provided. In addition to the ease with which new plants can be constructed, it is possible for mills producing one type of cotton cloth to change over

to almost any other type of cloth which is yielding unusually good profits at the time. This sort of "free entrance" keeps the profit margins on different types of cloth fairly well in line throughout the industry. All in all, then, the industry conforms sufficiently well to the requirements of perfect competition that its operations may reasonably be compared with the results of theoretical reasoning.

The consequences of competition in this industry were loudly lamented in trade journals during the 'twenties and 'thirties. Excess capacity, as indicated by profit ratios, seems to have appeared about 1923, and to have persisted until the late 'thirties. The consumption of cotton goods increased very little over this period, due in part to the development and cheapening of rayon fabrics. At the same time the productive capacity of the industry was increased by longer hours of plant operation and by the building of new plants in the southern states.

The possibility of spreading overhead affords a powerful incentive to longer hours of operation. New England mills have traditionally operated a single 8-hour shift. In the South, however, a large reservoir of labor and the absence of laws regulating night work led to a steady growth of two and even three-shift operation during the twenties. The NRA code for the industry limited each mill to 80 hours per week, but this had the effect of increasing rather than reducing the hours operated, since all producers then tended to operate the full 80 hours. The surviving New England producers were able to adopt this practice because of the widespread unemployment among New England textile workers. In 1936 each active spindle operated on the average of 3,926 hours or 75 hours per week, compared with 2,869 hours or 55 hours per week in 1923. This evidently amounts to an increase of almost one-third in the capacity of the industry during this period.

In addition to increased capacity from this source there has been extensive building of new plants in the southern states. The southern producer has a slight advantage in the cost of raw cotton, the cost of mill construction, and local tax rates, and a marked advantage in wage rates. During the 'twenties hourly wage rates of textile operatives were about 50 per cent higher in New England than in the South. The differential in unit labor costs was undoubtedly less than this, but it must still have been considerable. No data are available concerning total unit costs in the two areas, but profits figures may serve as indirect evidence. From 1925-29 a selected group of southern

companies earned 5.8 per cent on stockholders' investment, while selected New England companies earned 1.5 per cent. A more complete survey for the years 1933 and 1934 showed earnings of 7.1 per cent in the South, 0.33 per cent in New England (Table I). The relative profitableness of cotton textiles in the South caused plant capacity to increase from 16 million spindles in 1923 to 18.5 million spindles in 1937. These additional plants intensified the problem of excess capacity in the industry as a whole.

TABLE I PROFITS IN COTTON TEXTILES AND IN ALL MANUFACTURING
PERCENTAGE TO CAPITALIZATION

Year	All Manufacturing	COTTON TEXTILES		
		All	Northern	Southern
1919	18.3	32.5		
1920	12.3	12.1		
1921	2.9	9.4		
1922	10.2	11.4		
1923	11.2	11.0		
1924	10.0	1.3		
1925	12.1	4.3	-1.6	5.2
1926	12.4	3.2	-0.4	3.7
1927	9.5	10.2	3.2	10.4
1928	11.0	4.7	2.9	5.7
1929			2.4	4.1
1930				
1931				
1932				
1933	0.7	6.6	3.8	10.2
1934	3.0	1.3	-3.1	4.0
1935	5.7	-1.0		
1936	7.9	2.6		

Frequent efforts have been made to bring excess capacity under control. Leaders of the industry have advised restriction of output, and the Cotton Textile Institute has tried to secure agreement among producers to this end. These efforts have been uniformly unsuccessful. An agreement among the many producers of print cloth would not only be difficult to secure and enforce, but it would necessarily

receive considerable publicity and would be suspect under the Sherman Act. Entrance to the industry, too, is relatively easy. Not only is the necessary investment small, but support for new ventures has in the past been readily forthcoming from textile machinery manufacturers and local chambers of commerce. A restriction plan which increased textile profits materially would lead at once to fresh investment, and this would either break the plan or reduce its profitability. The most serious obstacle to agreement, however, has been the difference of viewpoint between southern and northern producers. New England producers have been inclined to welcome control, though even here the strong individualistic tradition of the industry has prevented complete agreement. Many southern producers, on the other hand, have failed to see why they should restrict their profitable operations in order to hold an umbrella over marginal New England mills. On this rock of southern opposition all proposals for control have been broken.

Voluntary restriction of output has been insufficient to restore the former profitability of the industry. Mill margins declined steadily from 1923 to 1932, recovered sharply in the last half of 1933, but sagged again from the end of 1933 to the summer of 1936. During this fourteen-year period, profits in cotton textiles appear to have been no more than half those of manufacturing industry generally (Table I). While this is not conclusive proof, it is strong *prima facie* evidence that average profits in the industry were below "normal." It is virtually certain that in every year from 1923 through 1938 the least efficient mills remaining in the industry had negative earnings.

It is perhaps necessary to distinguish in this regard between the northern and southern branches of the industry. During the years for which data are available (1925-29 and 1933-34), southern producers averaged more than 6 per cent on stockholders' investment. It is doubtful whether these earnings should be considered subnormal, particularly in view of the fact that plant capacity in the South increased appreciably during the period. It is clear that the marginal mills have been located very largely in New England. Low or negative earnings in New England have resulted in a steady liquidation of productive capacity. The number of spindles in place in New England fell from 18 millions in 1923 to 8 millions in 1937. Though a small number of spindles and looms have been moved South and reerected, most of this reduction represents actual scrapping of machinery, with buildings left vacant or rented to new users.

The experience of the industry from 1923-38 may now be summarized. The development of excess capacity in the early twenties brought low earnings, which could be increased only by controlling production or by reducing plant capacity. For reasons already indicated, control proved impossible and events took the latter course. Under the pressure of shrinking processors' margins, elimination of marginal mills went steadily forward. The total number of spindles in place fell from a peak of 38 millions in 1925 to 27 millions in 1938. Available estimates indicate that the process of liquidation is nearing its end; and that the capacity of the industry is now only slightly in excess of probable future sales. Competition has thus performed, though tardily and haphazardly, its traditional function of adjusting productive capacity to effective demand. The process of adjustment, of course, has been painful for many of those connected with the industry. The chief losers have not been the owners of New England mills, whose investments had in most cases been thoroughly amortized from previous earnings, but the New England textile workers. The closing of the mills has thrown some 100,000 New England workers out of employment, and large numbers of these workers were still unemployed in 1937.

III

It is frequently asserted that Adam Smith's "invisible hand," if not enfeebled from birth, has at any rate suffered a paralytic stroke in recent years. The experience of the cotton textile industry suggests that such an extreme view is untenable. It is possible for excess capacity to be eliminated through a competitive catharsis. It would be rash, however, to conclude from a single case that excess capacity will always be eliminated if competition is allowed to continue. Theory and observation both suggest that the adjustment of capacity may under certain conditions be postponed indefinitely.

It is important to distinguish between conditions which merely retard adjustment and conditions which are capable of preventing adjustment. The retarding factors, which arise chiefly from the rigidity of capital equipment, are now so well known that they need not be discussed here. The possibility that adjustment may be prevented, on the other hand, arises chiefly from the imperfection of the labor market. This aspect of competition has received relatively little attention, and deserves a brief comment.

The supply function of labor to the individual firm is probably

discontinuous in most actual cases. It is likely to be very elastic upward, particularly if there is unemployment in the locality. In the downward direction, however, it may be very inelastic for a considerable distance. The supply curve is hinged, as it were, about a point representing the present level of wages and employment in the plant. The downward elasticity, of course, will vary with the number of alternative opportunities for employment, and with the period of time considered.

Not only is exploitation of labor possible under these conditions, but the degree of exploitation is likely to vary among different plants in an industry and among different geographic areas. This situation tends to create excess capacity by encouraging the building of plants in places where the degree of exploitation is particularly high, although profits in the industry are no more than normal and the places concerned have no genuine productive advantages. Even if the expansion of an industry into a new area is justified by genuine economies, a high degree of exploitation in that area may make the expansion greater than it otherwise would have been. The excess capacity which necessarily arises in such cases is thus intensified.

Whether labor's exploitability can contribute to the *perpetuation* of excess capacity depends on whether employers normally take full advantage of their possibilities of exploitation. If they do not, as seems likely in practice, then the possibility of additional wage cuts is always present. In any industry where excess capacity has developed, at least part of the producers will be able to avoid the incidence of falling prices by cutting wages. Firms which would otherwise have been eliminated are thereby kept in production, and excess capacity is perpetuated. The self-adjusting mechanism of classical theory depended on producers being ground between falling prices and rigid cost functions. If wages can be cut and cost curves lowered at will, the bottom drops out of this apparatus. An incidental result is that those firms which are eliminated are not necessarily the least efficient, but may be those whose labor supply curves are most elastic downward. Firms located in cities with diversified industries, for example, may be in a poorer position than firms in one-industry towns which have no close competitors for the available labor supply.

The existence of widespread and continuous unemployment may also enable excess capacity to continue indefinitely. Under these conditions many of the unemployed will try to establish themselves in industries, which require little capital, such as baking, the garment

industries, printing, building construction, retailing, and the repair and service trades. These men require no return on their meager investment, and are willing to work long hours for sums little greater than could be obtained on relief. Although their methods of production may be relatively inefficient, they are able to sell at prices low enough to attract business from larger and more efficient establishments, which then find themselves with excess capacity and sub-normal earnings. This sort of situation does not correct itself automatically. If some of the larger establishments are forced out of existence as a result of their rigid cost structures, and if some of the small men do fail through mismanagement or insufficient capital, their places will quickly be filled by others who prefer work at low wages to unemployment.

It is clear, then, that excess capacity may in some cases assume the proportions of a chronic illness. The remedy usually proposed by producers is the fixing of a minimum price sufficient to cover "cost" or "cost plus a reasonable profit." The surface attractiveness of this remedy rests on its ambiguity, and disappears as soon as one inquires what is meant by "cost." Who is to determine cost? If this is left to the producers, as it must be unless the government is prepared to employ a large staff of accountants, the result is to give them virtually a blank check. Whose costs are to be taken as the basis for price fixing? The unit costs of different producers in the same industry may easily differ by twenty or twenty-five per cent. If the choice is left to producers, there will be a strong tendency to fix a price high enough to cover the costs of the least efficient firms. Are average costs or marginal costs to be used? The tendency of producers to think in terms of average cost may lead to the fixing of a price too high to permit the most desirable utilization of plant capacity. When to these objections is added the high cost of adequate enforcement, there is a strong presumption against embarking on such plans.

While it is not the purpose of this paper to elaborate a positive policy in this field, a few suggestions may be made. Anything which helps to prevent wage rates from falling below marginal value product will help to prevent excess capacity from developing and persisting through the exploitation of labor. Provision of information concerning job opportunities, financial aids to mobility, the development of unions, minimum-wage legislation, and reduction of unemployment can all be helpful in this connection.

The alleviation of general unemployment would also prevent the

flooding of the merchandising, handicraft and service occupations which was pointed out above. The concentration of an unduly large part of the labor force in these industries is poor social economy. Yet it is probably better to have men employed inefficiently than not employed at all. The only genuine remedy for the situation is a level of production which will draw men out of occupations into which they have been forced by unemployment and in which their productivity is relatively low.

In the absence of rapid economic expansion, excess capacity will develop frequently, last for long periods of time, and in some cases persist indefinitely. The direct approach to the problem through price fixing, however, is likely to do much more harm than good. The effective measures, from the public standpoint, are mostly indirect. They lie partly in the field of wage policy, partly in the field of cycle policy. The problem thus overlaps and merges with the larger problem of how to maintain full utilization of resources in an expanding economy.

SECTION V

Types of Markets: Non-Competitive

IN THE GENERAL STUDY OF ECONOMICS MUCH TIME is often devoted to an analysis of perfect competition, after which the student's attention is turned to monopoly. But are these two extremes, these opposite poles, the only significant forms of market structure or do they merely serve to mark the outer limits of some middle ground in which daily business activity is carried on under modern capitalism? Are there not, in addition to perfect competition and pure monopoly, other types of market organization? There are, and this section shall be devoted to an examination not only of monopoly, but also of those hybrid conditions often referred to as monopolistic (or imperfect) competition and oligopoly.

The nature of pure monopoly is easily grasped—it is a condition where the market is controlled by one seller, or by a group of sellers acting as one seller. There is no freedom of entry into a monopolized industry and the seller has complete discretion as to price and output policy, subject only to the limitations of consumer demand. A monopoly is a “corner on the market” and may be achieved by any of the factors of production: land, labor, or capital.

Oligopoly differs from monopoly in that a few sellers (usually from 2–10), rather than a single seller, control the market. The restraint exercised by a group of oligopolists may be perpetuated by imposing legal or economic restrictions on the freedom of outsiders to enter the trade.

Monopolistic or imperfect competition exists when there are a large number of producers in an industry but producers who sell a differentiated, rather than a homogeneous or uniform, product. There is usually freedom of entry into the trade and the method of competition resorted to is typically based on non-price rather than on price differentials between rival products.

The claims are often advanced that under conditions of monopoly, oligopoly, or imperfect competition artificial scarcities are created in the market with the intent of raising prices and increasing profits; that powerful producers, or groups of producers, are re-

sponsible for setting high prices, since large profits go hand in glove with high prices; that these producers oppose the flexibility of prices in a downward direction, thus violating the dictates of a fluctuating market demand; and finally, that they enforce considerable rigidities in the market by resorting to such schemes as price fixing, price leadership, basing point systems, personal and regional price discrimination, and abuses of the patent privilege. It will be interesting and fruitful to examine the justification, or lack of justification, of these claims in several of the industry case studies presented in this section.

It will also be desirable to examine the conflicting theories concerning the newer methods of competition that have come into vogue during the latter part of the 19th century. Is price competition indispensable for a healthy and vigorous rivalry between sellers or may competition take other forms without necessarily diminishing the intensity of the market struggle? Are advertising, sales promotion, fancy wrappers, attractive sales girls and other types of non-price competition legitimate and desirable methods of economic rivalry or are they merely subterfuges for a refusal to give consumers the benefit of lower prices? Are they instrumental in increasing consumer satisfactions or must they be looked upon as competitive wastes? Do they result in more efficient service, lower costs and lower prices in the long run or is the outcome a creation of excess capacity in already overcrowded industries and hence a waste of scarce resources? These and other questions must be answered before we can expect to devise intelligent policies for the public control of industry.

The problem of finding a proper policy for regulating industry must, in turn, involve an understanding of past attempts at social control. We have to study the precedents established by legislative and judicial action by considering the attitude which Congress has traditionally taken toward the regulation of competition and monopoly. We must know whether the laws on our statute books have tended to favor the maintenance and preservation of competitive conditions or whether their effect has been to encourage the concentration of control over market price and output in the hands of a few large business units.

Before recommending a policy to be followed in the future, we must become aware of several paradoxes. We must recognize that, while freedom from governmental supervision and tyranny is a commonplace objective, monopoly *may*—under the guise of laissez-

faire and the survival of the fittest—be the logical outcome of free competition. We must also realize that strict enforcement of price competition requires a larger number of small business units, i.e. a type of market organization which *may* deprive us of the large-scale economies made possible by mass production and giant production units. We must, therefore, understand the choice before us: to leave things alone and perhaps permit competition to degenerate into monopoly, or to impose more or less strict government controls on industry in order either to preserve the conditions necessary for competition or to permit concentration of economic power under state supervision. Neither choice may be altogether desirable, but a choice has to be made. The current anguish over finding a proper solution to the problem of controlling competition and monopoly adds but another dilemma to the already numerous dilemmas of our time.

CHAPTER 10

The Economics of Monopoly

PRICES UNDER MONOPOLY ¹

ADAM SMITH ²

Adam Smith here argues that monopoly prices are always the highest that can be obtained in contrast to competition, where prices are generally the lowest which sellers can afford to take.

A monopoly granted either to an individual or to a trading company has the same effect as a secret in trade or manufactures. The monopolists, by keeping the market constantly under-stocked, by never fully supplying the effectual demand, sell their commodities much above the natural price, and raise their emoluments, whether they consist in wages or profit, greatly above their natural rate.

The price of monopoly is upon every occasion the highest which can be got. The natural price, or the price of free competition, on the contrary, is the lowest which can be taken, not upon every occasion indeed, but for any considerable time together. The one is upon every occasion the highest which can be squeezed out of the buyers, or which, it is supposed, they will consent to give: the other is the lowest which the sellers can commonly afford to take, and at the same time continue their business.

The exclusive privileges of corporations, statutes of apprenticeship, and all those laws which restrain, in particular employments, the competition to a smaller number than might otherwise go into them, have the same tendency, though in a less degree. They are a sort of enlarged monopolies, and may frequently, for ages together, and in whole classes of employments, keep up the market price of

¹ This selection is reprinted from Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776, Book I, Chapter 7.

² Adam Smith (1723–1790) was sometime professor of logic and later moral philosophy in the University of Glasgow, and finally commissioner of customs at Edinburgh. He is regarded as the founder of the Classical school of economics.

particular commodities above the natural price, and maintain both the wages of the labour and the profits of the stock employed about them somewhat above their natural rate.

Such enhancements of the market price may last as long as the regulations of police which give occasion to them. . . .

MONOPOLY: THE STORY OF CARTELS ¹

DAREL MCCONKEY ²

Mr. McConkey here presents the view that monopolies and cartels earn excessive profits by making less goods and selling less goods—at higher prices.

A cartel is not easy to understand, for it does business by restriction. It restricts everybody but the master-cartel. Cartels make money—and keep control—by making less goods and selling less goods—at higher prices.

Let's take an entirely imaginary and oversimplified example and see how it works.

Centerville is an average American town with lots of mice in it. Nothing is safe from them. They get into barns, bins, pantries and closets; they eat everything, and chew up what they don't eat. But the pest is not confined to Centerville. Somehow or other, it has been a good year for mice all over the country.

Centerville has a mousetrap factory, run by a man named I. G. Farben. The factory is not ordinarily very busy, but, in a good year for mice, Mr. Farben is snowed under with orders for traps. Thinking it over, Mr. Farben sees that there are advantages to a shortage which he had noticed before: people do not object to paying more for a product when there is a scarcity of it.

Mr. Farben wonders what he can do to make the shortage permanent. He goes over into the next state to visit a mousetrap factory

¹ This selection is reprinted by kind permission of the publisher and author from Darel McConkey, *Out of Your Pocket*, New York: Pamphlet Press, 1947, pages 7-11.

² Darel McConkey (1905-) was economist for the special Senate sub-committee on war mobilization.

at the town of Rodenton. He finds them digging a foundation for an extension to the factory. Mr. Farben had guessed right—the next thing, Rodenton would be invading his territory and spoiling his scarcity. He frowns and tells the Rodenton man that all this work is unnecessary. Keep the same size factory, don't increase your investment in plant, don't put on any workers or raise any wages, keep all costs down, but charge fifty cents for a mousetrap instead of ten cents. Then, says Mr. Farben, you can sit back on your front porch, smoke ten-cent cigars, and watch the money roll in.

The man at Mousetrap Rodenton, a lazy sort of fellow, thinks this is a good idea, and he calls off the workmen. Then he and Farben make up and sign a secret contract. They are to keep prices up and production down. Each is to sell in his own territory and leave the other man's territory alone. Then, to make assurance doubly sure, they agree on production quotas, and sign up to pay heavy fines in case the quotas are exceeded.

The people who buy mousetraps don't know anything about it, of course. All they know is that mousetraps are almost impossible to get, that they cost five times what they once did, and that the mice are eating up everything not kept in safe-deposit boxes.

But monopolies, like lies, are never simple.

Mr. Farben is back home, buying a pocketful of ten-cent cigars and feeling that he has everything nicely buttoned down, when he sees a line forming down the street. That can mean only mousetraps, and he goes to see about it. There is a big sign, MOUSETRAPS 30¢. Somebody is underselling him! He fumes and frets in the line, and finally gets a trap. It is made in Europe, by a factory in Katztown.

There is no time to sit on the porch and smoke. He grabs the next plane to Katztown. The man at Mousetrap Katztown is a little stubborn, but Mr. Farben is persuasive, and he comes around. He agrees to stop shipment of all Katztown traps to North America. In return, the continent of Europe is to be his market—exclusively. They bring in Mousetrap Rodenton and sign a three-way agreement. Now the mousetrap cartel is well on its way. But there is still another factory, over in Cheeseburg. Without Cheeseburg coming in there would be what Mr. Farben calls Destructive Competition. He extends his travels, has a tough time of it, but signs up Mousetrap Cheeseburg. Now, the Situation is Stabilized.

Mr. Farben settles down with a fifteen-cent cigar in the Pullman, going back home. The men in the smoker are talking about mouse-

traps. A traveling salesman says he knows a man who has a way to lick the shortage. This is Mr. Garrett, the poor inventor, who lives in the woods close to Centerville. He has invented a Multiple Mousetrap, and has a patent for it. He will defeat the mousetrap shortage by making one trap do the work of five. He will sell it for the same price as the solo trap, thus wiping out the shortage and getting the edge on competition by selling five traps for the price of one.

Mr. Farben beats a path to his door.

Mr. Garrett's wife is sick, and needs an operation. His children—why must poor inventors have so many children?—need shoes and better food. Mr. Farben wants to know how Mr. Garrett is going to finance a factory to put the Better Mousetrap into production. Mr. Garrett doesn't know; perhaps the banks. . . . Mr. Farben remarks that bankers are very crusty people to deal with, people like calculating machines, with no humanity in them. But he, Mr. Farben, already has a factory in operation. . . . Of course, he doubts that the patent is practical, but Mr. Farben admits that he is a philanthropist at heart. For the sake of poor sick Mrs. Garrett and mouse-ridden humanity he will venture a few hundred dollars on this doubtful invention.

Mr. Garrett signs over the patent rights, a document which Mr. Farben takes home and pushes far back in the corner pigeonhole of his roll-top desk. That will be a good place for it. Besides, it may come in handy, as Mr. Farben tells himself, In Case the Economics Change. Then he goes down and inserts an ad in the papers, telling what wonderful things Science is doing to Make a Better Mouse-trap and Safeguard the Property of the Great American People.

Orders keep piling up on Mr. Farben's desk. He cannot fill all of them without plant expansion, and he is prevented from filling them by his own quota system and by his own agreement to pay a fine for exceeding it. Gradually he realizes that a shortage can have disadvantages too: he is losing business that could be very profitable. Finally he counts up the orders and decides that he can fill them, pay his fines, and still make a handsome profit.

For the next year or two Mr. Farben does very well. He is rapidly becoming the biggest mousetrap maker in the world, with secret controls over all the others. He controls old and new patents and can count on the new ones to protect him when the old ones expire. He has indirect controls over the mouse population and the

damage it can do to people's food and property. He is scientific about it: he has been able to extend one good year for mice to several good years for mice, and a good year for mice is a good year for Mr. Farben.

But this business of paying out fines to the less important mousetrap makers bothers him. It takes too much out of his profits. He calls a secret meeting, and paves the way for it by some work beforehand.

As arranged, the man from Mousetrap Rodenton gets up at the meeting to explain how beneficial the quota system has been to all the cartel members. . . . They all owe a debt of gratitude to Mr. Farben, he says, for letting them in on his system. But he points out that the quota system has been an unnecessary burden on their great business leader, and as for him he thinks the group should let Mr. Farben have a bigger quota.

The man from Katztown is a little stubborn, but he comes around. But the man from Mousetrap Cheeseburg is very obstreperous. He doesn't see why the others can't increase their quotas in proportion, nor can he see why they should contribute to making Mr. Farben the kingpin of the mousetrap industry. He makes a motion that all quotas be increased in proportion, with equal treatment for everybody.

Mr. Farben comes quickly to his feet. He begins by presenting census figures on the mouse population, a matter, as he shows, that must be handled very carefully in order to keep it at the optimum and better-paying level for mousetrap makers. Then he mentions that he has licensed a patent to Mousetrap Cheeseburg, and that he would be very unhappy if he were forced into increasing anybody's license fee, or revoking anybody's license. He would be even more unhappy if he had to bring out entirely new inventions in his possession, which he could not afford to license to anybody who did not "co-operate" with him.

The vote is unanimous to "co-operate" with Mr. Farben and give him bigger quotas.

A war is now coming on, and with it a demand for more mousetraps. The army needs more and better mousetraps to protect its stores. There is absenteeism in the defense plants because people are kept awake by mice running across their faces, and because they must get up all through the night to reset the only mousetraps they can get.

The Government is getting impatient with the mousetrap makers, and they agree to let up on all restrictions. They simply cannot afford an investigation. But it is too late. The controls are too tight to loosen up. The best wood for mousetraps, the best springs for mousetraps, the best bait for mousetraps, have been kept in short supply for so long that things can't be made to move fast. There are too few mousetrap technicians and too few workers expert at making mousetraps. A business laced up in a strait jacket finds that it cannot get loose and limber up for a big job in a hurry.

The Government cannot wait, and Congress investigates. The people find out how the whole system works, how the conspiracy of mice and men has been used against them for years, causing them trouble and loss, for the sole purpose of making profits for Farben and his friends. The people are plenty mad about it. They demand that Mr. Farben and his cartel be abolished.

As for Mr. Farben, he no longer sits on his front porch. The Government had issued a set of pronouncements saying that his manner of doing business should not continue. Mr. Farben has banished himself to a pleasant resort, where he sits in the sun getting a nice tan and smoking two-bit cigars. He is trying to figure out how he can get the old business going on the same favorable basis again. "The people will forget," he keeps telling himself. "Their memory is short. They will forget, and I can start in quietly again, start in secretly, and gradually work up."

He is depending on us to forget all about it. He is meeting genially with the Right People, a charming fellow with a nice tan, a disarming fellow who talks about "free enterprise." He has no seeming motive except to be a good fellow and to give away good cigars. . . .

MONOPOLY: THE ROLE OF PATENTS¹WALTON H. HAMILTON²

Professor Hamilton here explains how patents were used in the glass container industry to achieve a monopoly and suggests that legislative action be taken to prevent abuses of the patent privilege.

The gentlemen in the glass container industry have long been desirous of security. The raw material is to be found almost everywhere; the capital required is not excessive; labor which can be fitted to the task is widely available. And, in spite of the formidable appearance of the machine, the art of bottle-blowing is comparatively simple. All of the requisites, save one, are in easy reach of all corners. Were technology free, the industry would be wide open—and probably as chaotically competitive as women's dresses or bituminous coal. Yet, because of the closely guarded process of fabrication, a fence shuts in the industrial domain. A number of units—which once were inclined toward trade war—have found their places in an empire which bows to a single authority. Hartford, home of the Hartford Empire, is the capital; Corning, of the Houghton Associates, and Muncie, or "Middletown," of the Ball Brothers, are leading provincial cities. And Washington, D. C., the domicile of the Patent Office, is a kind of treasury, too remote to disturb with a will of its own, yet near enough to supply every necessary support to an entente cordiale which runs on.

The glass container is a commodity after its own kind. It is not, like dates, or pork, or hides an article which nature provides. It is not, like cloth or shoes or spectacles, fabricated to serve a distinct human need. It did not, like ice cream, the radio, or tobacco create its own demand. Instead, goods of many kinds had to be packaged or they could not go to market, and the instrument of glass, because of cheapness or convenience, replaced other containers of wood,

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paper, or metal. The article, accordingly, enjoys an unearned increment created by forces not of its generation. The canning of fruits and vegetables on the farm called forth the Mason jar. The decree of pasteurization outlawed the peddler's dipper and evoked the glass bottle. The coming of prohibition drove the outlawed liquid from mug into receptacle and stimulated the sale of bottled soft drinks. Repeal brought back—not the pitcher and the family entrance—but the beer bottle.

A primitive art, resting upon "blowing by hand," could hardly withstand such social trends. As early as 1905—a point of time more than twice the life of a patent away—Owens had developed an automatic suction machine for making glassware; a little later Hartford-Fairmont patented a gob-feeding device which served the like purpose. At the same time Corning was perfecting a machine process for making glass bulbs. The three large concerns did not have to create a market for their products; they had only, with the rights which their patents gave, to go forward and possess it. They had little to fear from others; for the ancient art could not compete with the new technology. They did not, except to keep their grants alive, have to improve their methods. The only threat was a practical substitute; and it was slow in coming.¹ The companies could—so long as basic patents were periodically refreshed—continue to supply a rapidly expanding market. If neighbors should attempt to barge in with the same process or product, the courts could be invoked to arrest the trespass. A stop was called to all competition from outsiders—in glass containers or in glass machinery. The field belonged to the three; and, had they chosen, the Titans might have battled for possession.

Each cast longing eyes over the whole of the promised land—but in the end they did not so choose. A sharp boundary was drawn about a great empire by the series of patents; the companies had to appoint their own lines between provinces or leave them to the courts. In driving into the other fellow's territory the stakes were high but the costs and hazards were heavy. It was a game at which all could play; every foray was sure to be followed by reprisals; offense was certain to be the best defense. In 1915, Corning and

¹ The paper container has made inroads and is now displacing somewhat the milk-bottle. But it must be made far more durable and air-tight to become a serious rival. A metal container has made some headway as a substitute for the beer bottle.

Hartford bowed to the cost of litigation; a cross-licensing agreement gave to Hartford the field of glass containers and to Corning the realm of bulbs and specialty wares. The rapprochement presently led to an *anschluss*; and in 1922 the two concerns entered into a full-fledged pooling agreement. At the time, Hartford-Fairmont was reorganized as Hartford-Empire; a controlling interest, 59.5 percent, in the new venture went to the stockholders of the old Hartford-Fairmont Co.; 40.5 percent went to the Empire Co., a subsidiary of Corning, which in turn was controlled by the Houghton family. Their minority interest, however, received recognition in the right to name four of the nine directors of the new corporation. The common accord, in respect to production and price, was continued. The first act in the welding of the empire was complete.

Owens, however, had to be faced and Owens occupied strategic heights. It had found that Hartford's gob-feeding process was a menace to the sales of its suction machinery; so it had begun to buy up gob-feeding patents in preparation for an economic battle to be waged with legal weapons. In 1923 it instituted a suit for infringement against one of Hartford's licensees—the initial attack in an arduous and uncertain campaign. The parties took one long look at the hazardous way ahead, another at the richness of the prize to be won, and decided to divide the spoils. Except for the rights which Owens held in the suction process, each was licensed to make use of the patents of the others. . . . The second act in the welding of the empire was complete.

Next a blitzkrieg was directed against the independents. They were harassed with suits for infringement, which kept them occupied, drained their resources, disorganized their markets. In the end they had to capitulate and accept the settlement dictated by the alliance. Their patents—not yet invalidated by litigation—were taken over by Hartford. Such as were left in business were compelled to accept licenses from Hartford and to pay a tribute of which Owens received a share. In instances the threat of a bout at law was enough; in others independents or their customers had to have their days in court before they were willing to capitulate.

Along with these events went a move to domesticate the patents to the acquisitive arts. A research staff, widely publicized as an instrument of technical advance, was given the task of improving the processes of production. All innovations were duly patented, but not so promptly put into effect. As others came forward with inventions,

Hartford intervened, and the proceedings were protracted until the resources of the applicant were completely exhausted. It caused its own novelties to linger around the Patent Office for years, thus deferring the date of issue and thus prolonging the life of the protection. One basic patent, for which application was made in 1910, did not emerge until 1937; thus a grant which should have run its course by 1927 retains its validity until 1954. A similar device, but fitted out with a narrowed claim, was in 1928 accorded letters patent which expire in 1945. Yet, although its life terminates then, protection runs on because of the longer grant. Thus for Hartford legal sanctions have been kept alive as the patent has been harnessed to the balance-sheet.

The venture into imperialism was vigorously pushed by Hartford and associates. After a running fight of several years, Hazel-Atlas came into the entente. The runner-up to Owens lost its independence and was assigned its place in the empire. And Hartford's divisible income—which included royalty payments on the Hazel-Atlas patents by its former competitors—was now split three ways. Next Thatcher and Liberty, large manufacturers of milk bottles, came in; agreed to pay royalties; and received preferred treatment. Next their competitors were forced to take out licenses; and, in order that the market might not be spoiled, to accept production quotas fixed by Hartford. Last of all, a preemptory invitation was extended to Ball Bros. They had long been manufacturers of fruit jars, held the dominant position in the field, and lay entrenched behind their own patents. Ball continued to use their own process; agreed to pay royalties on inventions of which they made no use; and received assurance that no new licenses would be granted which encroached on their territory. The third act in the welding of the empire was now complete.

The monopoly had been fashioned; its lines stood sharply out. Concerns with power were accorded appropriate places; the small fry were treated as nuisances to be abated. An analysis of the total American production of glass containers reveals the design consciously wrought into the pattern of the industry. It shows Owens with 38.03 percent of the total output; Hazel-Atlas, 16.89; Anchor-Hocking, 8.01; Thatcher, 2.87; Ball Bros., 3.75; some 33 other licensees from Hartford, 27.05; and 3 independents with 3.40 percent. Thus of the total, Hartford is overlord to firms with 96.60 percent of the entire output. Of the 3 independents 2 are now being sued

for infringement. And the authority of the sovereign, with its power to grant or deny access to the channels of trade, rests upon documents issued by the Federal Government.

Hartford has thus become benevolent despot to the glass container. Only by its leave can a firm come into the industry; the ticket of admission is to be had only upon its terms; and from its studied decision there is no appeal. The candidate must subscribe to its articles of faith; he must not be a price-cutter nor a trouble-maker. So long as he lives up to its rules he may run his own business as he pleases. He may be as wasteful or as efficient as he pleases within his own establishment; but he may not make his customer the beneficiary of his efficiency. He enjoys a freedom under authority; the concerns are severally members one of another; independence must not go so far as to put a brother concern in financial jeopardy.

One who seeks induction into the mystery of bottle-making must present himself before "the character committee" of the sovereign company. He must persuade it that he is a man of integrity, that his financial position is secure, that his economic ideas are sound. But however elegant his qualifications, he can scarcely hope to be accepted unless there is room for him in the trade. For admission does not depend upon probity and pecuniary competence alone; nor is it fixed by those automatic checks and balances of the market which are "the balance-wheel of capitalism." Rather the issue belongs to the politics of industry and turns upon how much competition is best for the competitors. The company prides itself upon its complete information, its ability to gage the market, the neatness with which it accommodates its licenses to an increase in the demand for the product. Its avowed intent is, not the protection of vested interest against the newcomer, but doing nimbly and promptly what the market haltingly and clumsily would otherwise have to do for itself.

The empire is not opposed to competition; but it seeks to further normal, and to escape "ruinous competition." For that reason Hartford inserts restrictive provisions in its license. Whether concerns came in willingly or were conscripted, each was assigned its demesne. In general, the initial standard was the status quo. . . .

The restrictions take a variety of forms. Limitation by type is universal; and containers of the same type may be distinguished by use. Fruit jars used for home canning and by commercial packers may look alike, but for purposes of the license they are distinct

wares. The sale of the one for a purpose to which the other is ordinarily put would be a violation of the law of the industry. Such respect is accorded the division of labor that a concern is permitted to fabricate bottles for chocolate milk, with the condition that they are not to be sold to dairies. Precaution adds the postscript that under no circumstances are they to serve as containers to unchocolated milk. The Buck Glass Co. is authorized to manufacture wine bottles for sacramental purposes only. The operations of the Sayre Glass Works are to be restricted "to such bottles, jugs, and demijohns as are used for vinegar, ciders, sirups, bleaching fluids, hair tonics, barber supplies, and fluid extracts." Likewise Florida Glass Manufacturing Co. must fashion its containers so skillfully that they may be filled only with mayonnaise, peanut butter, preserves, sirup, and honey. Knox Glass Bottle Co. is allowed to make only amber ginger ale bottles; Mary Card Glass Co. only blue glass containers; Carr-Lowry Glass Co. only opal colored products. Hocking Glass Co. may not make products weighing more than 82 ounces; and Baurens Glass Works, Inc., is licensed to provide bottles for castor oil and turpentine, but none to exceed 4 ounces in capacity. . . .

A number of manufacturers are permitted to sell only to specified customers; one company may not ship its products outside the States of "Washington, Oregon, Idaho, and Montana, and the Territory of Alaska." Where a single concern has an exclusive license to manufacture a single type or for a specified use, output demands no formal control. Where two or more produce the same product, there must be an orderly sharing of the market. To such an accord a system of quotas is directed, which may be fixed either at a specific number of units or at a given fraction of the total output. But, no matter how devious the specifications, they hold no confusion and no source of discord. Each fief has its exact place in the pattern of the industry.

The net result is a business despotism. The free play of the market has been replaced by the controls exerted from the directors' board. Hartford-Empire is the creation of the dominant companies and represents their interest. The smaller concerns exist by its sufferance; and for them it establishes the conditions of business life. Its license—granted, revised, revoked at the pleasure of the corporation—is the right of its possessor to his trade. Its control runs out, through its affiliates, to comprehend all with whom they do business. In many instances it decrees that all who use a certain type of glass

container must purchase from a single firm. In others it fixes the terms of ultimate sale and leaves to the processor of the product no option but to take or to refuse the bargain. The network of conditions attaching to license constitutes a scheme of arrangements under which the various firms carry on. If it is a "self-government for industry," it is an industry in which consumers, who must pay the bills, have little voice, and in which the various members share in proportion to their financial strength.

In Hartford-Empire the lines of a corporate estate appear in bold relief. As phial, fruit jar, beer bottle, the ware is the most ordinary device. Its raw materials are omnipresent; it demands little manual skill from labor; its technical process is easily mastered. Yet it has become a dominion unto itself, hedged off from invasion on all sides. An order, a government, a system of law has been constructed for the whole industry upon the grant of letters-patent from the Federal Government. In a series of moves, the corporation has made itself sovereign; usurped the operation of the market; made dependent provinces of each concern it has taken in. It appoints to each its product, decrees its price, limits its output. Its powers of police comprehend many feudal estates; it levies toll upon every industry which must make use of its product. Its dominion extends to every aspect of the trade and its system of police is far more effective than that of any arm of the Government. Its authority—which rests upon a grant from the United States—is far broader than the Supreme Court has been willing to accord to a sovereign State of the Union.

It is easy enough to recite a case for Hartford-Empire. It has come into being in response to a demand for order within the industry and security to its firms. In glass containers, conditions do not invite a well-behaved competition; to allow the trade to remain open to all who wish to enter it is to invite chaos. Firms would rush in, capacity to produce would quickly outrun the capacity to absorb. A concern, met with a falling demand for its product, would seek to produce other wares. The advantages of specialization and quantity production, with their attending efficiencies, would presently be lost. As production fell back into a multiple process, costs would rise and higher bills would eventually be thrust upon the public. There would be a constant threat to solvency; the periodic epidemics of bankruptcy would fall upon all alike. In the end the plight of the glass container would become like that of textiles,

dresses, or soft coal. All lines would fade from the trim design of the industry. All who have a stake in its operation would have to pay for an emergent disorder.

The scheme is a barrier against industrial confusion. The creation of a structure accommodated to the task to be done is affected with a public interest. As the modern system came into being, Statutes of the Realm repeatedly sought the well-ordering of particular trades. If somewhat later the whole matter was left to the market, it was because competition was regarded as competent to impose design and purpose. In glass containers it is no longer able to do so, and all that Hartford-Fairmont, Corning, Owens and others have done is to provide a substitute for its magic. For such an undertaking they need an official warrant, and letters patent are the best to be had. They have set up, as their creature, Hartford-Empire, whose office is to have and to hold patents. To it they have assigned their various rights and it has been charged to invent, to contrive, to improve, but at such a pace as to keep alive a few basic patents. If perchance it now and then strays from the promotion of the industrial arts, it is to serve the more important cause of an industry, whose trim lines make it a model within the national economy.

It is idle to blame the architects for their industrial structure. Their concern was the pursuit of gain; they took the way of money-making; and if they made the road broader than legally it ought to have been, a public authority should appoint bounds. It may be that competition which served well enough an industrial system just hitting its stride is no longer appropriate—but the law of the land does not say so. It may be that a political should succeed an economic order in the conduct of trade; but if so, it should not ride roughshod over the little fellow, nor should it impose taxation without representation upon the consumer. If there is to be a government of industry, it should be a responsible one. Its task is to mediate between interests at stake, not to conduct the trade as if it were the property of a party. A sanction has been diverted from its accredited office to serve a private cause. A corporation has usurped the function of the market and has become sovereign of all that touches its product; as an authority, liable only to itself, it lords it over a gigantic domain. In glass containers, *l'état, c'est Hartford-Empire*.

MONOPOLY: BOTTLENECKS IN HOUSING¹THURMAN ARNOLD²

Mr. Arnold here shows how the consumer suffers from monopolistic practices in the housing trade, practices which are followed by producers and distributors of building materials, contractors, building trade unions, and local governments. He concludes that government subsidies to an industry of this sort will only perpetuate inefficiency, raise prices, and result in higher taxes.

RESTRAINTS OF TRADE IN THE BUILDING INDUSTRY

Dr. Isadore Lubin, in his testimony before the Temporary National Economic Committee, stated that we needed 525,000 new housing units per year for the next ten years in order to maintain even our present inadequate percentage of housing in the United States. It appeared from the testimony given before the Committee that there was little chance of getting these units under the restraints of trade then existing. In order to get any houses built the government has had to step in with various kinds of subsidies and housing projects—and this spending has not yet primed the pump.

Let us examine the market in which the government had to spend its housing money. The problem of unreasonable restraints in the building industry is not primarily one of whether a concern is big or little. It is as unreasonable for a small organization to prevent the use of standardized products, which can only be produced on a large scale, as it is for a large organization to eliminate the competition of small organizations which offer lower prices. Indeed, the boycott of standardized materials produced by large organizations is one of the principal types of restraints of trade found today in the building industry. The stoppage of the flow of competing materials and services in commerce is equally illegal, whether it be done by manufacturers, distributors, contractors, labor, or by vertical com-

¹ This selection is reprinted by kind permission of the publishers and author from Thurman Arnold, *Bottlelenecks of Business*, New York: Reynal & Hitchcock, 1940, pages 36-45.

² Thurman Wesley Arnold (1891-), formerly in charge of the Anti-Trust Division of the U. S. Department of Justice, is now in private law practice and occasional professor of law in Yale University.

binations of all of them, or whether it be accomplished through municipal ordinances and state laws many of which in reality are not building regulations but protective tariffs against other parts of the nation.

In the building industry we are confronted with a series of restraints, protective tariffs, and aggressive combinations which has practically stopped progress. No one knows how a house ought to be built or what materials are the most economical or how they should be distributed. Because of the existence of aggressive combinations, experimentation in housing can proceed only by compromise with various gangs. Both standardized equipment and experiments with standardized methods are limited in large scale housing projects largely because of these compromises.

The building industries have frankly given up half their job. They take for granted that it is impossible, as things are today, for them to build houses without public aid and sell them cheaply enough that the lowest paid half of the population can afford to live in them. This has been true for four reasons: that financing costs were high; that taxes were high; that land was high; and that the costs of construction were high. The government stepped in to help on the financing. It provided cheap credit and even subsidies. But the easing of this difficult only afforded an opportunity for costs of construction to go still higher.

Let us examine why pump-priming on the housing market failed to start the pump. It will add to our kaleidoscopic picture of restraints of trade because a house is a tangle of goods and services. No single heavy industry, nor the distributors of its products, nor the contractor who installs them, nor the labor that works on them can do anything alone to affect the final price of the house. If any one of these groups competes, it only handicaps itself for the benefit of others. Like a number of dogs who have hold of the same piece of meat, none of them dares let go. Housing is the kind of industry in which all the restraints must be prosecuted at the same time in order to get any economic effect. To make this clear let us summarize the kind of restraints to trade the Antitrust Division has discovered in the building industry.

I. Producers of Building Materials

Producers of building materials have fixed prices either by private arrangement or as the principal activity of trade associations.

Owners of patents on building materials have used them to establish restrictive structures of price control, control of sales methods, and limit upon the quantities sold, in direct contradiction of the broad intent of the patent laws to encourage, through inventions, the development and spread of new productive methods. Some of these patent holders have taken advantage of their control over patented products to require their licensees to give them control of unpatented products also. By the use of basing point systems, and zone price systems, various building material industries have established by formula a rigid structure of uniform prices throughout the country; and in some of these industries such price formulas have encouraged the wasteful location of industrial plants and the wasteful shipment of products to great distances. The use of joint selling agencies has been another means by which some of these groups have undertaken to maintain their prices. In some groups the various producers have subscribed to the theory that every member of the industry should have a definite share of whatever business there is to be done, and that no concern should try to get more than its share by price competition.

Supplementing these various devices for keeping the prices of building materials high have been a series of other devices used to discipline competitors who are unwilling to play ball. In one industry the means is cutting off the supply of raw materials. In another it is starting a series of harassing lawsuits. In a third it is the harassment of distributors by selling through the seller's own factory branches at prices lower than those at which the distributor is permitted to resell. In a fourth it is the maintenance of orthodox channels of distribution by concerted refusal to sell to groups representing new methods of sale or new price policies.

Overlying this mass of practices, often as a result of the pressure placed upon the weaker and smaller competitors, there is a growing concentration of control in many of these industries. For the most part the increase in the size of the business unit has not been the necessary result of more machinery and bigger plants; it has come about by the merger of competing enterprises which continued after their union to produce in very much the same way as before. Its chief significance has been an increase in the power of the particular unit and greater ease in reaching an understanding with the two or three other large concerns in the industry.

II. *Distribution of Building Materials*

Various groups of distributors of building materials engage in two kinds of restrictive practice. First, they try to raise the price of their services by establishing a fixed mark-up between the price they pay and the price at which they resell. For this purpose they collusively determine their mark-up or their selling price, and sometimes agree among themselves to boycott manufacturers who will not cut off supplies from price-cutting distributors. Sometimes they conspire with manufacturers' groups to establish a joint price control binding upon the manufacturers' and the distributors' organizations alike.

The second type of restraint by distributors arises from the effort to see to it that all business passes through their hands and that no new methods of distribution are introduced which may dispense with their services. The great weapon in this field is the boycott. Groups of wholesale distributors may boycott those who sell direct to retailers. Groups of retailers may boycott those who sell direct to mail order houses or direct to the ultimate consumers. Sometimes the members of a distributors' organization will boycott any manufacturer who sells in their territory to non-members. To secure freedom in methods of distribution, some manufacturers have found it necessary to pay the distributor a commission on sales even when the customer and the manufacturer have dealt direct and the distributor has had no part in the transaction.

III. *Contractors*

Contractors who erect buildings add their own systems of restraint. Many contracting groups maintain bid depositories in which copies of all bids and estimates are supposed to be filed prior to the award of the contract. In some of these depositories the bids are opened before the contract is let and the information thus obtained is used to coerce low bidders to withdraw or raise their bids. Other contractor groups maintain central estimating bureaus which calculate the cost of the job and supply the various contractors with the bids they are to make. In still other groups a central bureau determines the specifications for materials and labor to be included in the bid, and the contractor is expected to apply standard prices and labor rates to these specifications and thereby to arrive at the same bid as everyone else. Some bidding rings determine in advance which

contractor is to get the job and arrange their bids so that everyone else bids higher than he.

In addition to these efforts to control their charges for services, many of these groups set up little closed markets from which they exclude outside contractors or new types of services. They may try to keep all the contracting work for local contractors or for contractors who are members of the association. They may refuse to use materials which have been bought from any source of supply other than themselves. They may insist that prefabricated products be not used in the buildings they work in. They may cooperate with contractors interested in other materials, so that no contracting group will work on a building if a product assembled at the factory is used contrary to the wishes of some other group.

IV. *Labor*

The building trades unions often participate in these policies of restraint and add new restraints of their own. In recent years they have frequently been used as the strong-arm squads for collusive agreements among contractors, refusing to supply labor where the contractors' ring wishes labor withheld. In other cases the unions themselves have refused to permit the use of new products or new processes because of their fear that the new method might make it possible to erect a house with fewer hours of labor than the old.

V. *Legislative Restraints on Trade*

Such practices crystallize and lead to legislative restraints on trade. Many building regulations are, in reality, protective tariffs. The licensing and registration of contractors by boards of contractors affords a means of discipline over contractors. In one state, a contractor who must take out a license is one who undertakes "to construct, alter, repair, add to, subtract from, improve, move, wreck, or demolish any building, highway, road, railroad, excavation, or other structure, project, development, or improvement, or to do any part thereof, including the erection of any scaffolding, or other structure, or works in connection therewith."

To this broad class of work, which includes practically everything, the statute applies a method of rating bidders according to vague standards interpreted by the contractors themselves. It then puts handicaps on out-of-state contractors and out-of-state products. This is not an isolated example.

On top of legislative restrictions are added municipal ordinances designed to restrain competition. They start out from the fact that there must be protection from fire and safeguards of minimum health requirements. They develop into legally established boycotts, particularly relating to walls, roofs, electrical work, and plumbing. I am reliably informed that the plumbing which is good enough for the magnificent Department of Justice building in Washington, D. C., cannot be used in private homes in many cities.

I do not need to elaborate the significance of these restraints. . . . Most of them are intended to raise or maintain prices and have been successful in doing so. Although the decline in the volume of construction was conspicuously greater than that of most other industries during the depression which began in 1929, the level of building materials prices and of building costs fell less than that of other prices. When building recovery began, the effect was just the reverse. By 1936 the volume of construction, including public work, had recovered from the four billion dollars of 1933 to about eight billion. From 1936 to 1937 it rose less than half a billion dollars, and in the latter year totaled not quite eight and a half billion dollars, a little less than two-thirds of the volume to be expected at prosperity levels. Urban residential construction rose about 27 per cent during the year, but was still only 40 per cent of the 1929 level. Nevertheless, during that year the cost of constructing a small house rose more than 10 per cent throughout the United States and in some large cities rose about 25 per cent. Building costs have proved flexible upward but not downward. The aggregate effect of the restraints in the building industry appears to be a gigantic stairway of prices and costs on which the height attained during the period of rising prices becomes the taking-off point for mounting to the next period.

In a free market subsidies and relief should have acted as a temporary stimulus. In the controlled market of the building industry they actually tended to perpetuate the vicious system which has kept the price of housing up and made subsidies necessary. They operated actually to raise prices instead of to lower them. Taking New York City as an example, we find the volume of building doubled under government subsidy and credit in 1936 and 1937. Theoretically, since there was no scarcity of goods or materials, this greater volume should have lowered prices. Actually prices rose 25 per cent. As a result the ordinary man had to pay for these subsidies three times, once in taxes, once in prices when he built his own house

during that temporary boom, and a third time in loss of wages when that temporary boom collapsed. Under such circumstances the building boom choked itself off and the subsidies become only a bonus for inefficiency. This is typical of what happens to plans to stimulate industry when there is no free market. And thus in an economy where free markets are choked we are presented with the absurd spectacle of the poor riding around in cars and paying fixed prices for gasoline while the government has to keep their children fed and a roof over their heads.

You can't spend relief money in a market like that without subsidizing inefficiency and thus raising both prices and taxes. Neither can you spend national defense money effectively in that kind of market.

IS THE PETROLEUM INDUSTRY A MONOPOLY? ¹

GASOLINE RETAILER ²

Here is presented the claim that the petroleum industry is not a monopoly (1) because it is composed of a large number of individual firms, (2) because petroleum prices have evidenced marked flexibility, and (3) because many new companies have broken into the refining field at frequent intervals.

Every time the oil industry attempts to constructively serve the American motorist through the introduction of new ideas, processes or methods, some one brings forth the charge that it is a monopoly. It is time for us to look into this word which is used as the rallying cry for those disturbers of industrial peace who find in such agitation a means of restricting free enterprise.

The definition of "monopoly," according to Webster's dictionary, is as follows: "Monopoly—exclusive control of the supply of any commodity or service in a given market; hence, in popular use, any

¹ This selection is reprinted by kind permission of the publishers from H. A. Inness Brown, Editor, *The Gasoline Retailer*, Central States Edition, October 29, 1947, pages 12A-13A.

² *The Gasoline Retailer Inc.*, 480 Lexington Avenue, New York, New York, publishes a bi-weekly newspaper.

such control in a given market as enables the one having this control to raise the price of the commodity or service materially above the price fixed by free competition."

In this article an attempt has been made to give the facts behind the oil industry from producer to retailer. It should explode for all time in the mind of any fair individual that the oil industry as now constituted is a monopoly.

There may be many other reasons why the industry should be criticized but in fairness to the vast majority of men who make it up this word should be relegated to the scrap heap as outworn and untrue so far as it describes this industry.

Every jobber, distributor and retailer knows he has to work hard and be on his toes at all times in order to keep his business "in the black." Some marketers say that this is due to the fact that competition within the oil industry is too stiff. At the same time others maintain that the industry stifles competition. The great majority realize, however, that the healthy competition which exists throughout the oil business offers a splendid opportunity.

That competition provides a never-ending flow of new and better oil products for marketers to sell. It offers an ever-expanding field for the energetic small business man. It gives him opportunities to protect his interests. It insures him against the threat of restrictive government regulation. Moreover, statistics show that, though oil men do have to work hard and be on their toes, they make a reasonable profit and have managed to do so in hard times as well as good ones.

Look up the definition of "competition" and you will see it leaves no room for any "deals" by which competitors get together to squeeze out their rivals. Leaving definitions aside, can you figure out any possible way in which the 34,000 companies making up the U. S. oil industry could have survived if any combination had stifled competition between units? It couldn't be done. There are too many healthy competitive independent companies involved.

The same situation is found when we examine various sections of the industry. In the production field, small, independent drillers, or wildcatters, are—and always have been—largely responsible for the discovery of new oil deposits. Those independents drill 80 per cent of all wildcat wells and 75 per cent of all development wells. There are 13,475 of those production companies. Only one of them

controls more than 10 per cent of this country's proved reserves of oil, and only one produces as much as nine per cent of the nation's total crude oil.

Next, let's look at the situation in refining. Anybody knows that considerable capital is needed to enter this field. The average 10,000 barrels-per-day refinery is worth about \$10,000,000 because of the complicated and expensive machinery required, although a plant running 3,000 to 5,000 barrels can be built and profitably run for considerably less than a million dollars.

That's not peanuts, but does it mean that petroleum refining has no competition? Of course not. The fact is that America has 400 refining companies and they are highly competitive. The independents among them own about a quarter of the nation's refining capacity. The remaining capacity is accounted for among the large, integrated companies, which must compete on quality, low-cost production and markets. Only one of these has more than 10 per cent of U. S. capacity. One has between 8 and 10 per cent; three have between 6 and 8 per cent; three have between 4 and 6 per cent; five have between 2 and 4 per cent and seven have less than 2 per cent. That is a far cry from the days when one company held 84.2 per cent of the nation's total.

In spite of the substantial capital needed to do so, new companies keep breaking into the refining field at frequent intervals. In 1911, four companies that are important today were small, and two of today's big companies did not even make gasoline before 1927. The big oil companies are growing, of course, as the result of the over-all development of the United States, but they are not expanding as fast as the smaller ones. The share of the market which goes to the large companies is constantly shrinking because of the rivalry of the smaller fellows.

Some 20 companies own and operate about 70 per cent of this country's 148,000 miles of pipelines. That looks like an absence of competition in the oil transport field until you start taking such things as these into account:

A similar competitive situation exists in the oil transportation field. Six-hundred and fifty companies are engaged in the shipment of oil and its products by means of 148,000 miles of pipelines, 300 ocean and Great Lakes tankers, 1,400 barges, 150,000 railway tankcars and 100,000 trucks, all on a highly competitive basis.

We now come up against the argument which goes like this:

"Even if oil is competitive, the big companies still get together somehow to fix prices."

That is what is called arguing in circles. Competitors don't—can't—"get together." They compete for the largest share of the available market. That means selling the best possible products at the lowest possible prices.

The main argument used by those who talk about price fixing is that gasoline and oil prices are pretty much uniform in any given area of the United States. But the plain fact is that in a given community prices for any commodity tend toward uniformity, whether that commodity be oil and gas or a bag of potatoes.

Think this over a bit. It's easy to understand why a monopoly would sell a product at a set price. Can't you see, though, that where costs of operation are relatively equal no competitor in his right mind would charge a much higher or lower price for gas and oil at one service station than that charged by other stations in the same neighborhood or city. If his price were too high he would lose gallonage and go broke. If it were too low he would be selling at a loss and go broke. Of course the change might be due to a shift in wholesale prices. Even then, competition between wholesalers would soon equalize prices in the service stations which they supplied.

In other words, oil prices are more or less uniform because oil men, from service station back to the well, know their business. Their job is to get customers and sell at a profit. They can't afford to be undersold or oversold. They watch the activities of their competitors as carefully as do the managers of competing grocery, drug or department stores. The result is that their prices are as stable as those of other established products which the public buys.

So, since our "uniform price" yardstick won't show us whether oil prices are "fixed" or not, we will have to find another one. How about this: Any economist will tell you that when a monopoly sets a price, that price tends to become *rigid*. That is, it stops obeying the law of supply and demand. It goes up in good times, along with those of competitively sold commodities. It stays high or goes down only a very little, during hard times.

Is that true about gasoline, to take just one example? The record shows that gasoline prices, over the years, have fluctuated according to the rules laid down for a competitively sold commodity. They have gone up a bit when demand was high in good times. They have dropped when demand lagged during the depression. But the long

range price trend of gasoline and other oil products was downward for many years after 1920!

The average retail price of gasoline (minus tax) was 29.74 cents a gallon in 1920. The tax of .09 cent made a total of 29.83 cents. In September, 1947, the price (minus tax) was 17.37. The tax was 6.28 cents and the average total cost was 23.65. This means that, after 27 years, the retail price (minus tax) of a gallon of gasoline is lower by more than 40 per cent and the price (including tax) is lower by 21 per cent. That certainly does not look like the behavior of a price-fixed commodity.

Now that we have shown that the petroleum industry is competitive, let's take a look at a few facts and figures.

First, let's compare oil with several other large industries: Thirty-four companies make America's automobiles and trucks; but the three largest companies supply almost 80 per cent of the market.

Twenty-six companies make rubber tires, but the four largest companies supply 80 per cent of the market.

Two hundred and forty-six companies finish steel, but the seven largest companies account for 72 per cent of finished steel output.

Four hundred companies refine oil. The seven largest companies supply less than 55 per cent of the total domestic market.

Every study of this type shows that petroleum is among the least concentrated of all major industries. The Twentieth Century Fund ranked the oil industry 46th in a list of about 80 large and small industries as far as concentration of employment in the major units is concerned. The Temporary National Economic Committee ranked petroleum refining among the few major industries which have shown an unusually marked rise in competition.

There is always the charge, of course, that oil companies are owned or controlled by a few large stockholders. The fact is, that nearly a million and a half Americans own stock in petroleum companies. In addition TNEC investigators found that of the 20 larger integrated oil companies, only two are controlled by the founding families and only four others had financial groups holding either major or minority control of their stock. After eliminating those six groups of stockholders, the investigators found that the average member of the "100-largest-stockholder" class owns less than 1/3 of 1 per cent of the stock in the average oil corporation.

We now come to the last-ditch argument against oil. People who use it admit that the industry is a free-enterprise, competitive busi-

ness in respect to price, profit and economic concentration. Then they go on to maintain that it discourages the establishment of new oil companies and hampers the growth of old ones.

Let us agree, to start out with, that a number of oil companies do go bankrupt every year. So do a lot of grocery stores. No subsidies are granted to weak sisters in a competitive economy. They have to earn a profit or go to the wall and make room for some more efficient outfit. Most of them do make a reasonable profit.

It is true, however, that, if the total number of companies within an industry decreases steadily over the years, that is an indication that there may be a trend away from the competitive system. Well, let's look at the record to see what is going on in the production field:

The record for the last three years shows an increasing number of new businesses in the crude petroleum and natural-gas production fields. In 1944, 1,300 new businesses were started and 900 were discontinued—for a net gain of 400. In 1945, 1,600 new companies were started, and 900 were discontinued—for a further net increase of 700 businesses. During the first nine months of 1946, 1,300 businesses were started, with 900 discontinuances, for a net gain of 400 companies. Thus, a total of 1,500 companies entered and stayed in the production field between January, 1944, and September, 1946.

Now let's come closer home and check up on marketing:

The best available evidence of the trend in the number of jobbers is found in listings published by the *Petroleum Register*. This publication listed 1,580 marketers and jobbers in 1918; 2,259 in 1923; 4,508 in 1928; 8,273 in 1933; 9,926 in 1938 and approximately 12,000 in 1947.

In retail marketing, the trend has been in favor of the small, independent outfit ever since the large oil companies liquidated most of their own retail outlets in the early 1930's. The number of service stations has climbed steadily from 121,623 in 1929 to nearly a quarter million this year. The period from January, 1944, to June, 1946, shows a net increase of 42,900 station businesses, 7,500 for 1944, 18,800 for 1945 and 16,600 for the first six months of 1946. When we take into consideration the fact that 19 out of every 20 American service stations are either owned or leased by small business men, we can see that, in this field also, the little fellow has a chance to make a good living. If he didn't have that chance he would be going into some other line.

So far we have been approaching competition from the angle of its effect within the industry. Now let's consider just a few of the endless benefits which that competition has provided for the people of America.

For one thing, the rivalry between those 13,475 production companies has increased America's reserves of oil until today they are the highest in U. S. history. This has been accomplished despite ever-increasing demand for petroleum products. It has been done by the use of initiative and imagination plus the most up-to-date exploration and drilling techniques that science can devise.

In the second place, the effort of competing companies to operate in the most efficient and economical ways has accomplished near-miracles of conservation which will redound to the benefit of all Americans in the years and decades to come. This conservation plan is based on the theory of proration. It was initiated by the companies in order to prevent early exhaustion of gas or water pressures which bring crude oil to the surface of the earth. Proration does this by limiting all the wells in a field to their most efficient rate of flow.

Proration is a genuinely democratic method of industrial self-regulation, and is the direct opposite of government-imposed restrictions. It maintains and strengthens free enterprise while at the same time conserving our precious and irreplaceable natural resources.

Finally, we must never forget that research conducted by rival units has helped, within recent years, to develop some 1,200 oil products and by-products which have become household or industrial necessities. Today U. S. companies employ more than 13,000 persons in such work—almost 10 per cent of all the industrial research personnel in the country—and spend \$50,000,000 annually in their never-ending efforts to beat their competitors to market with new and improved products.

Of course this research has an important dollars-and-cents value for everyone in the industry, whether he be a producer, refiner, transporter or marketer. But it is still more important as a symbol—a living proof that the progressive petroleum industry is of such a nature that, when serving its own interests, it also serves the best interests of all of the American people.

Is the oil industry a monopoly? We do not think so.

CHAPTER 11

The Economics of Other Non-Competitive Markets

THE CHANGING NATURE OF COMPETITION¹

NELSON AND KEIM²

Here are discussed changes in the nature of business rivalry—i.e., the trend from price to nonprice competition—and the implication of those changes, especially for social policy.

Price is but one of the avenues—and not necessarily the most significant—through which competition expresses itself. It has been pointed out . . . that there are hundreds of other grounds upon which sellers may choose to compete, such as the offer of better quality, more elaborate service, more attractive guarantees, more convenient terms of payment, chromium plating, neon lights, cellophane wrappings, better radio programs, etc. . . . The relative importance of all these latter devices for winning business, which may be collectively designated “nonprice competition,” has increased materially during the past generation, while the emphasis on the price aspects of competition has correspondingly declined.

This change in competitive emphasis has many implications. In the first place it inevitably alters the focus of government policy designed to cope with the problems of monopoly and competition in industrial markets. The efficacy of any program based upon or directed toward the behavior of prices alone neglects elements of vital importance.

More broadly the direction which competitive rivalry takes influences in many important ways the amount and variety of goods which are produced for consumption and the standard of living of consumers generally. The effect upon the well-being of the ultimate

¹ This selection is reprinted from Monograph No. 1, Temporary National Economic Committee, Washington: U. S. Government Printing Office, 1941, pages 54-59.

² Saul Nelson and Walter G. Keim, Bureau of Labor Statistics, U. S. Department of Labor, Washington, D. C.

consumer is especially marked because many forms of nonprice competition are particularly significant in relation to retail markets and to the everyday necessities of life. . . .

Nonprice competition expresses itself through a wide variety of avenues. Perhaps the most important of these is the actual quality or content of the products involved. For example, little effort has been made during recent years to reduce the price of automobiles to the consumer. Instead, stress has been placed upon constant improvement in quality, performance, and appearance. Automobile advertising reflects this policy, placing little emphasis upon price and much upon distinctive mechanical features, economy, and beauty of line. The same observation applies to a greater or less extent to most other complex mechanisms such as radios, refrigerators, oil burners, vacuum cleaners, and the like. In the case of refrigerators, for example, the retail prices of comparable models of competing makes are identical almost to the penny.

Differences between rival products may represent very real corresponding differences of desirability or usefulness. In addition, however, there is an undoubted tendency to create the appearance of difference where no real intrinsic difference in physical utility exists. In developing and retaining a market, producers and distributors make strenuous efforts to distinguish their products in the public eye from those sold by their competitors. As a result, competition in quality often takes the form of adding minor eye-catching features bearing, at best, a remote relationship to the intrinsic utility of the product. Intensive advertising campaigns, describing the merits of such features, are frequently accepted by the public with somewhat more credence than their accuracy warrants. Buyers may come to demand them with little or no regard for price relationships and to reject, as inferior, products not bearing them.

Although nonprice competition is most commonly associated with the element of quality, it should not be concluded that this is its only aspect. Collateral terms of sale are often important. Among these are guarantees of service or performance. In the case of rubber tires, for example, guarantees of mileage, backed by appropriate provisions for allowance in case the product falls short of the guaranteed performance, probably exert a distinct influence upon the market. The provision of adequate facilities for service and replacement has received much attention in certain lines of business. Thus, an automobile purchaser must consider not only its first cost, but also

the prices which he will be called upon to pay for inevitable repairs. The sale of one line of agricultural implements has been distinctly handicapped by the lack of an adequate widespread service organization.

The direction which competitive rivalry takes in any given industry is influenced both by the intrinsic nature of its markets and by policy decisions of the concerns comprising it. In some industries, for example, the nature of the product is such that elements of quality and style inevitably exercise an important influence upon the buyer's selection. This is true, for example, in the apparel markets in which well-defined "price lines" have become recognized as the result of custom and convenience. Thus, there is a limited number of wholesale prices at which almost all women's medium-price dresses are sold. These wholesale prices are, in turn, reflected in similar, though somewhat less rigid, lines in retail markets. As a result the focus of competition becomes the character of the garments which can be offered at the accepted price and not the price at which some specific garment should be quoted.

In their decision to stress nonprice elements in sales strategy, business concerns are often influenced by the desire to avoid direct price competition with their rivals. This has been one of the major factors in stimulating the use of advertising and of distinguishing brands and trade-marks. Much effort has been devoted to persuading the prospective buyer that advertised and branded products have qualities which distinguish them in important ways from similar products sold by others. These efforts have been most successful in those fields in which consumers find it particularly difficult to form objective judgments of the quality and usefulness of the merchandise. The drug and cosmetic industry furnishes an outstanding example of the manner in which the effective use of these techniques can shield trade-marked products from direct price competition with similar merchandise; very wide price spreads exist between virtually identical products differing only in name.

Business policy decisions to stress some form of nonprice competition may represent a voluntary choice. However, concerns which prefer to compete on a price basis are sometimes forced to adopt what they consider a less satisfactory alternative because of pressure applied from without. Such pressure may result from Government regulation of price or perhaps from coercion by competitors.

In general, businessmen have displayed much ingenuity in seek-

ing some competitive outlet as alternative to price reductions. Under N.R.A., when many prices were controlled by code provisions, some of the schemes adopted verged on the fantastic. For example, a retail druggist in California, unable to cut prices, employed a medium to give free psychic readings to his customers. An automobile dealer was accused of indirect price cutting because he bought six suits of clothes from a tailor to whom he sold a car. Lumber manufacturers cut prices indirectly by shipping a higher quality of lumber than the invoice called for. Coal producers offered guarantees of heat content which they knew were impossible of fulfillment, backed by a penalty in case the fuel failed to meet the standards set. Price-maintenance laws (the "Fair Trade" Acts) which largely eliminate price competition between retailers selling trade-marked products have resulted in emphasis upon elaborate service in some cases, and in a search for indirect ways of granting price concessions in others.

In some industries, although legal controls may be absent, the fear that price reductions may lead to price wars often results in the multiplication of grades and sizes. For example, instead of cutting prices on a standard grade of fertilizer, the producer may introduce a slightly different grade. As competitors match the new mix, the process is repeated. In many states the number of different grades became so bewildering that laws were passed to limit the variety that could be sold. Similar practices have occurred in many other industries.

This very cursory review of some phases of nonprice competition emphasizes both the importance of the issues and the difficulties of any unqualified appraisal. It seems reasonably clear that the change in competitive emphasis has not been entirely undesirable. Thus it is probably true that the increased attention paid to quality and performance has served to stimulate technical research. Certainly the automobile, the refrigerator, and the tractor are more satisfactory products today than they were some years ago. Undoubtedly technical advances would have occurred even if competition had focused upon price, but it is at least arguable that centering attention upon quality served as a more effective stimulation to its improvement than would otherwise have been possible. Conversely, there is some evidence that excessive emphasis upon price may lead at times to undesirable degradation of quality.

Where products are highly diversified and comparability between

rival merchandise is very difficult to obtain, the elimination of price as a major competitive factor may actually simplify the consumer's problems of selection. For example, since the standardization of women's dresses is remote from reality, the institution of price lines is not without benefit. It is probably simpler for the average consumer to select the dress she likes best at a given price than to weigh the desirability of small differences in price as against small differences in quality.

On the other hand it must be recognized that emphasis upon quality has often served to divert effort from programs designed to produce cheap but satisfactory merchandise to meet the needs of lower-income groups. It has been argued, for example, that the production of cheaper automobiles or refrigerators, stripped of all luxury features, could serve a useful purpose in expanding the potential market for those products.

One of the most serious objections to many forms of nonprice competition is the manner in which they complicate the buyer's problems of selection. Price is a universal measure and the significance of a price difference is readily understood by any buyer. The appraisal of differences in content or quality, or the translation of collateral terms of sale into price equivalents, is much more difficult, particularly for the average untrained consumer. Consequently, when the policy of distinguishing one's product from a competitor's is revealed, not in any real betterment of quality but in the multiplication of unneeded gadgets and superficial eye-catching features, there may be a distinct loss of competitive efficiency. It is unlikely that fancy packaging is of as much value to the consumer as low prices or improved quality. The forms taken by nonprice competition when it reflects the suppression of price competition through collusive or coercive tactics seem particularly valueless in serving the economic system. All these schemes have the disadvantage of substituting for a direct price cut, which the consumer wants and can measure, some substitute of uncertain value which he can well forego. If but a small fraction of these economically useless expenditures were translated into reductions in the price level, the gain in public purchasing power and the resulting stimulus to production and employment would be material. . . .

The significant issue, from the standpoint of public policy, is . . . immediate and practical. The forms which competition takes in-

timately affect the ways in which our resources are utilized, they influence the cyclical swings of business activity, and, in the long run, the consumer's standard of living.

Nonprice competition is of particular importance to the standard of living of consumers because of the extent to which it affects retail markets and the everyday necessities of life. The amount which a family must spend for food, clothing, groceries, drugs, and cosmetics is related to the manner in which business concerns selling these products choose to compete, by their decisions to stress or skimp quality, to advertise more or less intensively, to pack simply or elaborately, to favor or oppose retail price-cutting, and so on. This is clearly a matter of broad public concern.

THE ROLE OF COMPETITIVE ADVERTISING¹

R. B. TENNANT²

Dr. Tennant here argues that some kinds of advertising constitute a competitive waste for which consumers ultimately pay in the form of higher prices.

The Problem

In our analysis of perfect competition, monopolistic competition, and oligopoly we have brought the theory of the individual firm steadily closer to reality. We are now in position to improve further the realism and usefulness of our theory by taking into account the existence of selling costs.

All of the discussion so far has been in terms of price and output decisions. In perfect competition, the producer, confronted with an established market price, is concerned solely with setting the most profitable output. Under conditions of monopoly or monopolistic competition, the entrepreneur must set both price and output to secure the maximum profit under given conditions of cost and de-

¹ This selection is reprinted by kind permission of the author from a set of mimeographed readings used in conjunction with the principles course in economics at Yale University.

² Richard Bremner Tennant (1915-) is now an instructor in economics in Yale University.

mand. An oligopolist must take account also of the possible effects which his decisions may have on other producers. In all of these cases the business man is supposed to be concerned only with the volume of output and with price. We must now recognize the fact that most entrepreneurs must make other decisions in addition to the basic ones on price and output. The choice of an advertising program will affect profits but that choice depends on other considerations than those we have treated so far.

The firm in perfect competition has no sales problem. At the established price the producer can sell as much as he desires. In imperfect competition where the producer is faced by an incompletely elastic demand curve rather than a set market price, sales are limited by the price which he is willing to accept. If the firm's demand curve is lowered through the competitive aggression of other firms, sales can only be maintained or increased by a fall in price. When, however, selling costs are assumed, the firm is provided with another competitive weapon. A producer can resist an invasion of his market either by dropping his price or by increasing his advertising expenses.

Let us consider the matter in another light. We have always assumed until now that the cost and demand conditions for a firm are given and independent of each other. In monopolistic competition, the volume of possible sales depends solely on price. Given the price, we can tell what amount can be sold. Given the volume of sales, we know what price can be obtained. This information is given by the demand curve without any necessary reference to the cost conditions. Similarly, where there are no selling costs, total costs depend solely upon the volume of output. Given the volume produced, we know what it will cost. Given the total cost incurred, we can tell what output will result. This information is given by the cost curves, entirely without reference to the conditions of demand. To reiterate: *We have heretofore assumed the demand and cost curves to be independent of each other.*

This assumption of independence is no longer valid once we admit the existence of selling costs. Selling costs are distinguished from other costs by the fact that they affect the demand conditions for the product without directly causing any necessary initial change in the volume of output. An advertising campaign may enable a business man to sell his existing output at a higher price than before or to sell a larger output at the same price, or to combine a larger output with

a higher price. If either of the second two alternatives is chosen, then the advertising has, in a sense, created the conditions leading to an expansion in output. The advertising outlay changes demand conditions so that it is desirable to produce more. But a further increase in production outlays is necessary actually to provide the added units of output. Thus while selling costs may give rise to changes in output they do not directly and inevitably produce the changes.

It will be immediately apparent what complications are introduced into the relatively simply relationships of price, cost and output with which we have previously dealt. Price is no longer dependent simply upon the quantity sold. If we are given the price, we cannot tell the amount which can be sold unless we also know the size and effectiveness of selling outlays. If we are given the volume of sales, we cannot say what price can be obtained unless we have full information on sales expenses. In the same way, total costs will not tell us the scale of output nor will the scale of output indicate the costs incurred unless we have complete knowledge of the selling costs involved. The business man cannot take demand and cost conditions as given and select the most profitable price and output. Cost and demand conditions affect each other in complex ways, and the business man has more difficult decisions to make than those for which we have allowed.

The matter is further complicated by the many forms which selling costs may take. Advertising on the radio and in the press is only one kind. The money which goes into fancy wrappings for cigarettes and candy affects the demand for those products. Large department stores incur considerable expense in maintaining a pleasant atmosphere and in providing charge accounts and delivery services in order to attract customers. The extra services of free air and windshield wiping which gas stations provide serve to increase business, though such services are not at all necessary to the process of filling a tank with gasoline.

A decision to improve the quality of a product involves some of the same considerations as does a decision to increase advertising expenses. In both cases the conditions of demand are changed and the cost curves are changed without any necessary effect on output. Many quality changes involving superficial changes in finish or appearance are indistinguishable in effect from improvements in wrapping and packing. Accordingly, although the costs of producing

special qualities are not usually considered a part of selling costs, many of our conclusions will apply to quality improvements as well.

The business man, then, in addition to deciding on price and output, must determine what quality of product to make, how to package it, how much to spend on advertising and what sales-assisting services he must offer.

The Method of Analysis

The number of variables with which we must deal has grown so inconveniently large that graphical analysis becomes unwieldy. The complete solutions which Boulding and other writers put forward are too involved to present here. Fortunately, most of the important conclusions can be presented and explained without elaborate techniques.

The decision by an entrepreneur to embark upon an advertising campaign or to provide new delivery services or to improve the quality of his product will shift both his average total cost curve and his demand curve. Marginal cost may or may not be affected. With the new curves a new output and/or a new price will probably be indicated.

For any program of selling cost, i.e. for any given positions of the demand and cost curves, there will be an ideal price and output. The intersection of marginal revenue and marginal cost will indicate an equilibrium position which will yield maximum profit. The analysis which we developed in the absence of selling costs is still valid.

For any level of selling cost, then, there will be a maximum profit, but this maximum profit is likely to be different for each different program of selling costs which may be selected. The aim of the business man will be to select the total volume and the various kinds of selling costs in such a way as to secure the largest of these maximum profits. If he is successful, then the firm is in complete equilibrium when no change either in selling costs or output or price will yield an increase in profit.

It will not be to the advantage of the entrepreneur to expand selling costs indefinitely, for these eventually yield diminishing returns just as do production costs. Some repetition is necessary if advertising is to have any effect at all, so that increasing returns may rule for a while. But after the initial range of increasing returns is

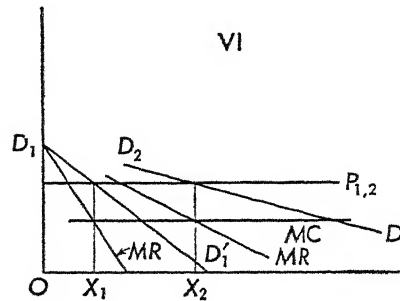
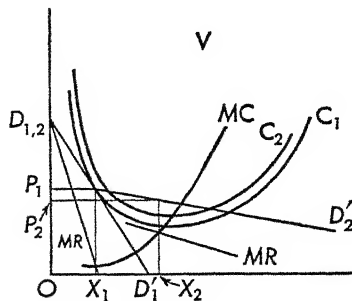
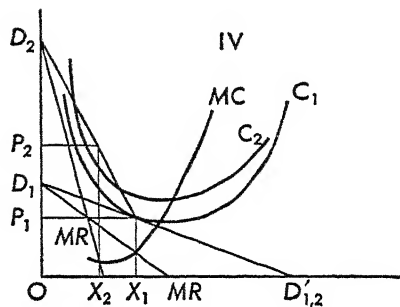
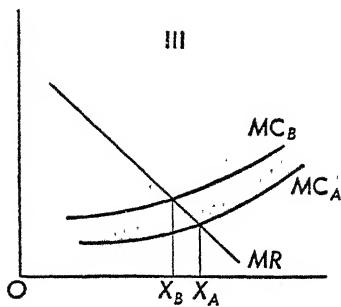
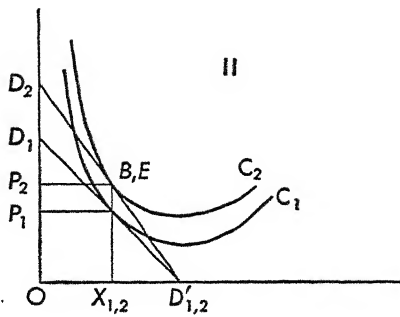
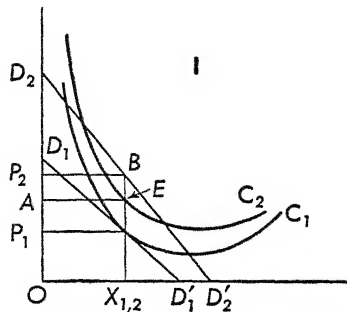
passed it eventually becomes true that further amounts of advertising do not increase demand as much as they do costs. Simple information can be conveyed to prospective purchasers by quite small expenditures. Persuasion and indoctrination of consumers require larger sums, but the most gullible or most eager consumers are quickly won and the more elaborate and expensive techniques are directed to the more remote, more sceptical and more resistant consumers. This necessity of cultivating increasingly barren markets as only the most resistant consumers remain to be converted and as converted consumers become satiated with the product makes diminishing returns to advertising inevitable.

The same is true of other forms of selling cost. It does not pay to multiply services indefinitely. Filling stations may wipe windshields to attract business but they have not found it worth while to throw in a free car wash with every gallon. Elaborateness of wrapping will be held within reason. And the indefinite elaboration of the product itself is not worth while. Nearly everyone would be willing to pay more for a Packard than a Ford but it is not worth while to make every Ford as good as a Packard and the Packard itself has not yet come out in a diamond-encrusted model.

We are justified then in concluding that there will be an equilibrium position for the firm, though the problem of establishing this equilibrium is more complex than when selling costs are not involved. The most promising level and pattern of selling costs must be selected, and price and output must then be chosen to yield the largest profit.

Considering the diverse patterns in which selling costs may be incurred, it is quite likely that more than one such point of maximum profit may exist for any given firm. The firm may then be in full equilibrium at one of the ideal positions so long as no other arrangement would yield *larger* profits than the one adopted. Or the firm may attempt to occupy several of the profit peaks simultaneously.

The automobile industry is a good example of this. Each of the large companies puts out cars of different quality in each "price field." If the Mercury were to prove more profitable than the Ford or Lincoln we would expect the manufacturer to transfer resources from the Ford and Lincoln departments to the Mercury department. This does not happen because the Ford Motor Company has presumably found three combinations of price, output and quality which are equally desirable.



Key to graphs

DD' Demand Curve
 MR Marginal Revenue Curve
 C Average Total Cost Curve
 MC Marginal Cost Curve
 OX Output
 OP Price
 P₂AEB Net Profit

SUBSCRIPTS:

- 1 Without Selling Costs
- 2 With Selling Costs
- A Where Selling Costs do not affect Marginal Cost
- B Where Selling Costs do increase Marginal Cost

The Pattern of Equilibrium

Let us next examine the effect of selling costs upon price, cost, profit and output.

Selling costs of any kind will shift the average total cost curve and the demand curve above their level in the absence of such cost. Selling costs independent of output such as most advertising and some services will not affect marginal cost. Improvements in quality or advertising in the form of elaborate packaging will shift the marginal cost curve as well.

If selling costs leave the volume of sales unchanged, the effect will be to raise costs and prices. If there is immunity from competition by other firms, profits may be higher, too. This may be seen in Figure I. As the result of selling outlays, the average total cost curve is raised from C_1 to C_2 and the demand curve from $D_1 D'_1$ to $D_2 D'_2$. Output is unchanged at OX . Average cost has risen from OP_1 to OA . Price has risen from OP_1 to OP_2 and new net profits of $P_2 A E B$ are now earned.

If the firm is operating under conditions of active monopolistic competition, extra profits may be wiped out but costs and prices will be higher as in Figure II. The new demand curve $D_2 D'_2$ has been driven down to tangency with the new average cost curve C_2 . Extra profits are eliminated but average cost and price at OP_2 are still higher than they were (OP_1) before selling costs were incurred.

There is of course no reason to expect output to remain unchanged. In any particular case the effect on output will depend on the way in which cost and demand curves are affected.

Selling costs incurred in a lump sum will be more favorable to an increase in volume than will selling costs which are proportioned to output. An advertising campaign will not affect marginal cost. An improvement in quality or increased wrapping expenses will increase marginal cost. In Figure III, $M C_A$ is the marginal cost curve when selling costs are incurred in a lump sum and $M C_B$ is the marginal cost curve where selling costs vary with output. The marginal revenue curve, $M R$, appropriate to the new demand conditions will intersect $M C_B$ further to the left than it will $M C_A$. Consequently the output $O X_B$ will be smaller than output $O X_A$.

However, the overriding determinant of output changes will be the effect which selling cost has upon demand. Let us first consider a case where elasticity is changed but where the demand curve is not

shifted as a whole. This might be the case in the development and marketing of special quality goods. Elasticity will tend to be lessened if the effect of advertising or quality changes is to intensify the preference of existing buyers for the product. Demand will tend to be more elastic if the principal appeal is to new buyers.

Suppose then that elasticity of demand is decreased as in Figure IV. The amount taken at the old price is unchanged but a rise in price will cause a smaller fall in the quantity demanded than before. The demand curve is changed from D_1 to D'_1 to D_2 D'_2 . Marginal revenue will be lower and will intersect marginal cost further to the left. Output will be lowered from OX_1 to OX_2 and price will rise from OP_1 to OP_2 . If vigorous competition by new entrants to the industry eliminates the extra profits now earned and forces the new demand leftward to tangency with the new average cost curve, output will be lower for still another reason. With a smaller output and a higher average cost curve, cost and price must be higher than they would be in the absence of selling costs.

If elasticity is increased, as in Figure V, output will increase. With certain special curve shapes it is possible for cost and price to be reduced.

In most cases, however, where advertising is used the demand curve will be shifted to the right. And in many of these cases where advertising is most popular, oligopolistic conditions exist and there is security from competition by new firms. Abnormal profits do not call forth new entrants into the field and the demand curve is not driven back to tangency with the cost curve. In these cases, the usual intention of advertising is fulfilled and the volume of sales is larger than it would otherwise be. The cigarette industry is a case in point. Large scale advertising keeps the markets of the leading companies much larger than they would be without advertising.

The effect of selling cost on price again depends on what happens to the cost and demand curves.

Let us make the probably realistic assumption that marginal costs are constant as output expands. If elasticity of demand is likewise unchanged at the new output, it can be proved that price will be unchanged too. This situation is illustrated in Figure VI where D_2 D'_2 is farther to the right than D_1 D_2 but elasticity is the same at OX_2 as at OX_1 . Price also is the same as before. If elasticity is decreased, price will be higher. If elasticity is increased, price will be lower. The major cigarette companies quadrupled their sales in the last 25 years

while prices have changed very little. It is probably safe to infer that increased advertising expenses have had very little effect on the elasticity of demand for the various brands.

Defenders of advertising frequently assert that advertising costs the consumer nothing. The expansion in output which it brings about lowers unit costs so much that prices are below what they would be in the absence of advertising. We can see from our analysis that such a result is possible *if* costs do in fact decline with output and *if* elasticity of demand is not adversely affected. The effect of advertising on the growth and cost reduction of the automobile may be a case in point. The special conditions required destroy the validity of this argument as a general justification of advertising.

Our analysis of selling costs is less certain and definite than that we have dealt with before. This is partly because of the limitations of our analytical techniques but it is also the result of uncertainty and confusion in the phenomena we are studying. Selling cost decisions are a hit or miss proposition for the firm. It is usually overstating the knowledge of an entrepreneur to suppose that he has full information on the cost and demand conditions which confront him. He has even less knowledge of how a change in selling cost will affect those demand and cost conditions. A business man must rely on his own instinct or the professional advice of an advertising agency. Such an agency of course has an interest in persuading the client firm to advertise as much as possible. However they are arrived at, selling cost adjustments are likely to be even farther from the theoretical ideal than is the case with price and output adjustments.

Selling Costs and Market Types

The significance of some of our conclusions can be made clearer if we examine briefly several types of competitive markets and see how they are affected.

Perfectly competitive markets involve no sales problem and the producer need not worry about selling costs. He has, it is true, a somewhat analogous decision to make concerning what industry to enter and what quality product to make. However, quality differences in those markets are usually identified by strictly defined grades and an improvement in quality will move the producer from one market to another without conferring any benefit upon him other than that enjoyed by all other producers in the new market. All such decisions in perfect competition reduce to a choice of industry under

the principle of equal advantage. Once the choice is made, with a homogeneous product and many sellers, the producer has no further influence on demand and must adapt himself to the going price as best he may.

The organized commodity markets of cotton and grains are the usually cited examples of this type of market. Among direct consumer goods, green vegetables and other truck farm products seem to be produced under perfectly competitive conditions. They are grown on many small farms and, except for occasional branding of out of season or special items, there is no attempt to identify the producer in the mind of the consumer. The housewife normally buys solely on the basis of availability and price and the price itself varies with the state of the crops. Selling costs are non-existent.

Perfect oligopoly is another case where advertising is of small importance. A standardized product and few sellers are found in markets within industry rather than in markets with which the ultimate consumer deals. Steel and cement are good examples of standardized products of a limited number of firms which sell to other firms. Almost all intermediate industrial products can be included within this category, however. Trucks and busses are complex commodities and the product of each company is different from that of the others. Yet they are built to precise specifications, quality is clearly defined, and the buyers are not likely to be influenced by advertising superlatives. Advertising for most intermediate products is limited to informative notices in the various trade journals. Quality is tailored to the demands of industry and price leadership is likely to rule. The fact that oligopoly is bilateral with many of these products makes it difficult to analyze the actual price equilibrium, but it seems certain that selling costs will not be important.

In monopolistic competition where there are many sellers but the product is differentiated, selling costs are important. Each producer has a private market which he can improve. Competitive pressure may prevent sustained high profits, but temporary advantages can be gained and selling expenses may be necessary as a competitive weapon if losses are to be avoided.

The most obvious examples of this type of market are the small retail stores and service shops which cater to the ultimate consumer. Tailors, cleaners, shoe repair men, barbers, restaurants, gas stations, grocers, bake shops all deal with special groups of consumers who are attached to them because of location, quality, service or advertising.

The importance of location as a factor in retail imperfection is testified to by the large number of bad restaurants and surly grocers. Quality or service becomes a useful competitive weapon when convenience of location is less important. Hence the generally superior restaurants and stores in the center of town. Hence also the lengths to which filling stations normally go in providing service. The customer is highly mobile and finds it no trouble to go elsewhere if superior inducements are offered. Advertising seems to be less important than other methods of stimulating demand for these types of firms. When location is important, publicity beyond the neighborhood is not useful and publicity within the neighborhood is not necessary. The grocer may advertise in the local paper occasionally but it will not represent a large expense for him. The stores in the center of town, with their larger and more mobile potential markets, obviously have a greater incentive to advertise. Superior qualities or services may fail to attract if attention is not called to them.

Most advertising by retailers is informational in character. Sometimes it merely calls attention to the existence of the store. More often it spreads news about the day's bargains. The appeal is to new or indifferent customers primarily. The effect seems to be a broadening of the market and an increase in the elasticity of demand.

Imperfect oligopoly with a differentiated product and few sellers seems to be the rule for most processed consumer goods which are sold nationally. The complexity of consumer tastes guarantees that special qualities will find special markets and the gullibility of consumers is such that advertising will convince them of quality differences even when a commodity is standardized by any objective test. When oligopoly conditions coincide with a differentiated commodity, producers have a powerful incentive to advertise.

The bulk of advertising expenditures is in fact concentrated on these products. Medicines, toilet articles, foods, smoking materials, automobiles, clothing and soap, in that order, account for the heaviest expenditures on radio and magazine advertising. All of these are differentiated if only by advertising persuasion. Wheat is a standardized product selling in a competitive market but flour, whatever its physical qualities, can be and is differentiated by advertising. Medicines, concerning which the consumer knows nothing and will believe anything, are the subject of a volume and type of advertising whose only apparent limit is set by the pure food and drug laws.)

For all of these products special consumer preferences exist or can be created.

It is also true of most of the products mentioned above that they are produced under conditions of strong oligopoly. The big coffee companies, soap makers, cigarette and auto companies dominate their industries.

We have seen before that in imperfect oligopoly price competition is unstable and may easily degenerate into price wars. Advertising expenditures offer an easy way out, for they attract customers as efficiently as would a price cut but are less likely to invite retaliatory measures.

Furthermore, when only a few sellers exist, it is evidence that entrance of new producers is likely to be difficult and the fact that profit gains can be maintained favors advertising.

Advertising itself strengthens oligopoly. In some industries, advertising is such a large expense and is so necessary for success that few potential competitors will have the resources required for effective entry.

All of these elements may be seen at work in the cigarette industry. The products of the leading four companies are very similar, yet strong consumer preferences exist. More is spent on advertising than is spent on production costs exclusive of the raw tobacco. In their relations with each other, the big four do not compete in price. They follow instead a policy of strict price leadership and only once in 25 years has there been active disagreement on what the price should be. Under these circumstances, effective new competition is very difficult though not impossible. Potential price instability is avoided and sustained high profits are earned.

Evaluation

The higher costs and prices which quality and service differentiation produce represent a payment which consumers are willing to make. Firms are smaller in size and more numerous than in the absence of such selling costs and this diversity is again an advantage for which consumers are willing to pay. So long as we suppose that people know what they want and get what they pay for this situation represents a sort of ideal. In many cases the supposition is suspect. People frequently buy ignorantly, attracted by irrelevant qualities or imputing quality by sheer expense. Buying an automobile by the

upholstery or a coat by the label are examples of common practices which carry a suspicion of irrational action. Since, however, we have no sound criteria for judging irrational choices, we will probably be wiser to accept consumer tastes as our ultimate value and to conclude that the use of special qualities and services to attract business is an economically justified use of resources.

Advertising may not raise prices above their level in the absence of advertising but the total amount spent on an advertised product and the volume of resources used in its production are almost certain to be greater. Can this use of resources be justified?

One function of advertising is to spread information. To the extent that this is done, the market is widened and buyers and sellers are brought into closer contact. This effect seems wholly desirable. This is the situation which is most likely to produce increased elasticity of demand and lowered price with increased output. Consumer tastes will then be better satisfied and resources used more efficiently. This is another type of ideal situation. Even if all of these advantages are not realized, the direction of the results is desirable and informational advertising appears to be a justifiable use of resources.

Advertising of course can spread misinformation as well as information. In the form of the outright lie it is manifestly undesirable and fortunately subject to legal control. Much misinformation is spread by implication, however. Non-existent glamorous qualities are associated with the product, or the consumer is convinced of certain satisfactions he will reap which are not in fact forthcoming. The divergence between anticipation and fulfillment is always unfortunate and when advertising widens the gap it renders a disservice. For practical purposes it is generally impossible to tell when advertising in fact raises false hopes. All that we can do is to rely on the consumer to learn by experience and to express a mild doubt that he will.

A more serious complaint against advertising is that it stimulates demand by creating new tastes. Advertising men are very proud of this aspect of their work. Whether it is a matter for pride depends upon one's view of the economic system. If the main purpose of the economy is to produce goods and keep people busy, then want creation is socially desirable. If, on the other hand, the chief function of an economic system is to distribute man's limited treasure of resources among his almost limitless desires, then the creation of new

wants is directly contrary to what is needed. Advertising then appears analogous to a doctor who puts salt in a patient's wounds in order to have more things to cure. The economy has accomplished something when a want is satisfied. When a new want is created the economy is farther from its goal.

PRICES AND COMPETITION IN THE STEEL INDUSTRY

1. *The Position of U. S. Steel*

U. S. STEEL CORPORATION¹

Here are described some forces and factors peculiar to the steel industry which make pricing of steel products according to the theory of "perfect" competition impractical, if not altogether impossible.

INTRODUCTION

How much does the price of steel influence the quantity sold? What is the relationship of cost to the price of steel? What degree of price competition is desirable, and possible, in the steel industry? Why does the steel industry quote delivered prices and why does it use the basing point method of quoting delivered prices? Does the steel industry perform its proper function in the national economy? Before these questions can be answered a careful analysis must be made of the fundamental factors underlying the demand-supply situation in the industry.

Subject to some exceptions with respect to particular products, the salient characteristics of demand and supply in the steel industry may be summarized as follows:

- (1) The demand for steel is marked by tremendous cyclical fluctuations.
- (2) The total demand for steel is inelastic, i.e., the total quantity of steel bought from the industry would not be greatly different at any particular time if the price were higher or lower.

¹ This selection is reprinted from Monograph No. 42, Temporary National Economic Committee, Washington: U. S. Government Printing Office, 1941, pages 11-12, 14-16, 21-22, 24-25, 28-30.

- (3) In contrast, the demand for steel from a particular producer usually possesses great potential elasticity. In other words, buyers will readily shift from one producer to another in response to a difference in price. This is due to the informed character of the buying of steel. Buyers have excellent technical knowledge of the product to be purchased; and since nearly all steel is purchased on specification, the identical grade and type of steel may be obtained for the most part from any one of a number of producers. Furthermore, the large size of individual purchases makes it worth-while for buyers to shop for the lowest possible price.
- (4) The cost structure in the industry is marked by substantial fixed costs which must be met regardless of the amount of steel produced. Even more significant is the fact indicated by the operating experience of the United States Steel Corporation and its subsidiaries over the past ten years that the additional cost per unit of output remains approximately the same regardless of the rate of operations, provided labor rates, prices of raw materials, etc. remain constant. As a result of these two characteristics the average cost of each unit of the entire output is higher than the additional cost per additional unit of output for practically the whole range of operations up to the limits of practical capacity. Finally, the cost of labor and of other goods and services purchased from others (which together constitute about 80 percent of the total cost in the case of the subsidiaries of United States Steel Corporation) are largely outside the control of the management of the steel producer.
- (5) Producers of the great bulk of the tonnage of steel products sold in the respective consuming areas are relatively few in number.

These characteristics of the steel industry, of course, do not coincide with the conditions necessary for the "perfect" price competition of classical economic theory. The theory of "perfect" price competition, for example, assumes each buyer and seller to be too small to influence the market price; any seller is supposed to be able to reduce his price and expand his production without fear of reactions on the part of competitors. This is not true of the market for steel. As a consequence of potential shiftability of buyers in response to price concessions, there is an incentive to obtain business by price reduction even below average cost as long as the price of the additional units so sold is above the additional cost thereof, but in actual competition in the steel industry such a tendency is modified to some extent by the difficulty of continuing to offer lower prices than competitors since competitors meet price concessions almost immediately.

Furthermore, "perfect" price competition does not take into account the consequences of the presence in the market of relatively few, but large, buyers, nor the size of their individual orders. It overlooks the relative difficulty of new producers entering the market and many other factors of importance in the competitive situation in the steel industry. In appraising this situation it should be recognized that the conditions requisite for theoretically "perfect" price competition have rarely, if ever, been approached in any industry, and could never be generally achieved in a manufacturing industry such as steel. Accordingly, it is hardly reasonable to judge competitive practices in the steel industry by imaginary standards based on abstract conditions which cannot possibly be fulfilled, and which probably never have been fulfilled in any industry.

Waiving the reasonableness of the application of the criteria, it is pertinent to inquire what the consequence of "perfect" price competition would be in the steel industry. If such a theoretical state of competition prevailed, each producer would take all the business he could get so long as the price yielded more than the additional cost of producing the additional ton of steel so sold. If the demand exceeded the capacity of existing producers, the price of steel would sky-rocket, being limited only by the magnitude of the demand. If, however, the demand declined to less than the existing capacity, the price would drop abruptly to the level of the additional cost per additional unit of the least efficient producer remaining in the market. In such a situation producers would cover little, if any, of their overhead. Producers, therefore, would be operating at heavy losses whenever existing capacity was not being fully utilized, and would recoup these losses by high prices and large profits during the peak of prosperity. In major depressions the efficient as well as the marginal concern would fail to survive unless it had accumulated an extraordinarily large cash balance. Under such conditions existing capacity would be reduced with the result that the steel industry would become a bottleneck in the succeeding rise in the business cycle by limiting the possibility of increased production and creating a premature boom in prices before the rest of the economy could achieve full employment.

Actually, of course, these characteristics of "perfect" price competition would not be tolerated. The cut-throat struggle in depression and the sharp increases in prices and profits in prosperity, as

well as the bottle-neck in capacity, would be the object of attacks by legislators, economists and others.

This paper is an attempt to outline the numerous factors involved in the pricing of steel with the hope that a re-statement of fundamentals will contribute to a clearer understanding of prices and price structure in the steel industry. . . .

CHARACTERISTICS OF DEMAND

The demand for steel is subject to tremendous cyclical fluctuations. This is due primarily to the great cyclical fluctuations in the demand for producers' and consumers' durable goods in the manufacture of which steel is consumed.

DERIVED NATURE OF DEMAND

The demand for new durable goods is highly sensitive to changes in the demand for services which the durable goods perform. This may be demonstrated by a simple theoretical illustration. A railroad needs five hundred cars filled to capacity to carry 10,000,000 passengers a year. Each year fifty cars normally wear out and are replaced. More people decide to travel by railroad and passenger traffic increases 10 percent, so that 11,000,000 passengers a year must be accommodated. This requires fifty more cars which must be acquired immediately to meet the increased demand for passenger service. Therefore, in the year that this increase occurs the railroad has to buy one hundred cars instead of the fifty usually purchased for the normal replacement program. Thus a 10 percent increase in the demand for passenger service results in a 100 percent increase in the demand for railroad passenger cars. This is sometimes called by economists the "acceleration principle." It works in reverse too. If passenger traffic decreased 10 percent there would not be any demand at all for new passenger railroad cars; since only four hundred and fifty cars would be required to carry the 9,000,000 passengers left, no additional cars would be needed to replace the fifty worn out. In other words, a 10 percent decrease in demand for passenger service would cause a 100 percent decrease in the demand for new durable goods to perform such service.

DURABILITY AND DEMAND

The longer the life of durable goods the more sensitive is the demand for the new durable goods to changes in the demand for

services. For example, in the simple theoretical illustration given above the average life of the railroad car was presumed to be ten years. Fifty cars normally had to be replaced annually. However, if the average life had been five years, 100 cars per annum would have to be replaced. In that even a 10 percent increase in the demand for passenger service would have resulted in only a 50 percent increase in the demand for new railroad cars and a 10 percent decrease in the demand would have resulted in a 50 percent decrease in the demand for new equipment. On the other hand, if the average life of a car had been twenty years, only twenty-five cars would have to be replaced annually. Therefore a 10 percent increase in the demand for service would have caused a 200 percent increase in the demand for new railroad cars. In the event of a 10 percent decrease in the demand for service, the replacement demand for new equipment would not only disappear entirely, but twenty-five additional cars theoretically would be removed from service and be available to meet the normal replacement demand in the following year.

Thus, while the demand for new durable goods is highly sensitive to change in the demand for services which the durable goods perform, the degree of such sensitivity and the magnitude of the resultant fluctuation in demand depends on the life span of the durable goods; fluctuations in the demand for new durable goods will be progressively greater as durability increases. In actual practice many qualifications to this principle exist, nevertheless it is fundamental in the demand for durable goods.

POSTPONABILITY OF PURCHASE OF DURABLE GOODS

The purchase of durable goods usually can be easily postponed, and is postponed when income is scant or prospects for the profitable use of additional durable goods are discouraging. As a result of postponability of purchase, producers' durable goods industries feel an immediate effect on demand resulting from the contraction of producers' income as expenditures for capital goods are deferred and the income of the purchaser is directed primarily to meeting necessary out-of-pocket expenses. In addition, even though the immediate business outlook is favorable, expenditures for capital equipment may be postponed if the long term business outlook is unfavorable; the business man must anticipate a reasonable return over the life of the investment before tying up his capital in durable equipment. After a prolonged depression, with purchases of durable goods almost com-

pletely eliminated, increased profits and returning confidence as to the future may stimulate a great upward surge in the demand for replacements previously postponed and also for new equipment for expansion.

In like manner, consumers' durable goods industries feel the impact of declining consumer income, as funds available are used to buy the necessities of life and existing consumers' durable goods, such as automobiles, are made to last longer than anticipated, or are discarded without replacement under stringent conditions. Increased consumer income, actual and anticipated, will create a strong revival in demand for consumers' durable goods as replacements are made and new equipment purchased.

As previously indicated, the "acceleration principle" becomes more potent as durability of a product increases. As a result the magnitude of expansion and contraction in demand for products of the durable goods industries will be greater than for non-durable goods industries. These fluctuations of demand for new durable goods will be further magnified by the postponability of purchase of these goods; a producer will buy coal, oil or electrical energy long after he has decided he must postpone purchase of capital equipment, and a consumer must buy food, clothing and other necessities even though he cannot afford a new car or a refrigerator.

TOTAL DEMAND FOR STEEL IS INELASTIC

The magnitude of these cyclical fluctuations in demand cannot be materially affected by adjustments in the price of steel because the total demand for steel is inelastic. This is due, first, to the derived nature of the demand for steel, and, second, to the limited number of substitutes for basic steel products, and conversely the limited number of products for which steel may be substituted.

As previously indicated, the demand for steel is derived from the demand for the services which products made of steel perform. If a change in the price of steel is to influence the demand for the finished product in which the steel is used, two conditions must exist: the cost of steel must represent a substantial percentage of the selling price of the finished article, and the demand for the finished article itself must be such that it responds to changes in its price. This is not generally the case; steel as a raw material usually represents a small percentage of the total cost of the finished product, and the

major industries purchasing steel have a rather inelastic demand for their products.

The automotive industry, which during recent years has been the largest single customer of the steel industry, is a typical example of the derived nature of the demand for steel and the resultant inelasticity of such demand. The cost of steel in a low-priced automobile retailing between \$700.00 and \$800.00 is about \$85.00, or roughly 10 percent of the retail price. Roos and von Szeliski in a recent study contained in "The Dynamics of Automobile Demand" estimated 1.5 to be a representative average of elasticity of demand for new automobiles; i.e., for every 1 percent decrease in the price, the automobiles sold would increase 1.5 percent. Since steel costs represent 10 percent of retail price, a 5 percent decrease in steel prices would permit a 0.5 percent reduction in the price of automobiles, and according to such elasticity of demand would increase automobile sales to the extent of 0.75 percent. The resultant increase in the demand for steel by the automobile industry would be negligible.

EFFECT OF THE SUBSTITUTION FACTOR

Substitution of steel for other materials, or a reverse substitution, is not an important factor in the cyclical fluctuations in the demand for steel. If, through lower prices, steel could invade a major market served by other products, or if high relative steel prices meant invasion of major steel markets by substitute products, there would be imparted to the total demand for steel a degree of elasticity not now present. Steel possesses more physical strength per dollar of investment than any other existing product; wood and concrete have a restricted field in which they may be substituted for heavy steel. Glass, plastics, rubber, aluminum and certain alloys may serve as substitutes in specialized fields; but even in these cases price may be only one of many competitive factors involved. Therefore, price reduction would result in very little additional steel being sold as substitutes for other products, and a price advance, unless abnormal, probably would not result in additional competition from substitute products. . . .

SUPPLY OF STEEL

The supply side of the steel market from a long term viewpoint is marked by these characteristics: (1) the areas of production are

geographically concentrated in a few districts because of location of raw materials and transportation costs. (2) Large size equipment and vertical integration are typical of the industry; some companies are also horizontally integrated, while a number of semi-integrated or non-integrated companies are specialists in particular products. (3) Large capital investment is necessary; however, for certain products the investment necessary to become a producer is relatively much smaller than for others, and this seems to be an important controlling factor in determining the number of producers of a given product. (4) Generally speaking, producers are large in size and few in number, although in particular cases major producers of specialty products may be smaller non-integrated or semi-integrated units. (5) Investment in new plants and equipment arises both in response to prospective profits and as a result of obsolescence.

In contrast with many types of markets the steel market is one not easily entered by producers, or withdrawn from, once entry has been accomplished. The large investment required, technological and organizational difficulties, and the problem of obtaining an immediate market are obstacles to entry. The non-recoverable costs that must be sunk in a steel company are not conducive to withdrawal if there is an opportunity for any return in excess of out-of-pocket expenses.

In much the same manner, the supply side of the steel market differs from other markets in that productive capacity cannot be easily adjusted to meet changing market conditions. Once capacity is installed, it is inelastic and cannot be removed except by scrapping, which ordinarily does not appear desirable due to the large investment involved; nor can capacity be easily expanded except by heavy capital expenditures requiring a considerable time interval. . . .

PSYCHOLOGICAL FACTORS

Buyers and sellers of steel react differently at various stages of the business cycle; this is natural in an industry marked by large cyclical fluctuations in the demand for its products. In depression the tendency toward price cutting grows as buyers bargain more sharply and sellers scramble for what business there is in an effort to reduce deficits mounting under the burden of "overhead" or "fixed" costs. In better times buyers are less averse to paying higher prices, and sellers no longer under the goad of operating losses are reluctant to make price concessions. Therefore, in part at least, cyclical fluctua-

tions in steel prices are attributable to changes in the psychology of buyers and sellers. . . .

In the falling cycle, average costs increase as demand and production decrease, accentuated in part by the continuance of high wages which have a tendency to become inflexible, or in any event to lag in their adjustment to the lower level of production. In the early stages of the decline in demand, the industry, aware of the inflexibility of the total demand for steel and faced by rising average costs per unit of output, naturally is averse to cutting prices when the prices they are getting on the going business barely cover their costs. From past experience the industry is aware that any weakening of prices leads buyers to hold off purchasing in the expectation that prices will go still lower. Then, too, the steel producer may be optimistic about an improvement in general business conditions in the near future. However, sporadic price cutting soon breaks out, spurred by the individual producer's hope of obtaining an additional share of the going business. Concessions soon become general knowledge in the trade; and while, for a period, some producers may not care to compete on the basis of these concessions, eventually all producers must meet competition at the going prices.

THE BASING POINT METHOD OF QUOTING DELIVERED PRICES

The basing point method of quoting delivered prices in the steel industry has developed over a long period of years in response to the fundamental economic factors of that industry. Two authorities on the economics of the steel industry succinctly point to the basic fallacy in the reasoning of most critics of this pricing method when they state that "Intelligent appreciation of the pricing problem in the steel industry has suffered from a failure of most commentators to distinguish between the basing point system as a medium or mere mechanism for the translation of policy into action and the economic roots of that primary policy itself."

ECONOMIC ROOTS OF THE BASING POINT METHOD

In quoting prices manufacturers of steel must take certain basic factors into consideration: (1) The cost of transportation from steel mill to destination may be substantial in relation to the value of steel shipped. Consumers of steel are interested in the cost of steel at the place where they use it. Therefore, most consumers want to know

the lowest delivered price at which they may purchase the steel they require. (2) Consumers of steel are located in different parts of the country and although more steel may be sold in some sections than in others, even major markets for the same steel product may be geographically widespread. (3) Producers of steel must locate their plants at points where raw materials may be economically assembled. This confines major steel producing centers to a few geographical areas. Modern steel making equipment is large and complex; it requires great capital investment and is extremely immobile once installed. (4) To insure economical and reasonably stable operations, steel producers must sell large quantities of steel and since consumers of the group of steel products that may economically be produced together may be located in different areas, the producer must be able to quote prices at diversified locations. The extent to which he may economically serve different consuming areas will be determined by the most economical combination of assembly costs of raw materials, production costs and the cost of delivering finished steel to important markets. (5) Producers of steel have large "fixed" costs, which must be met regardless of the number of tons produced so long as operations are continued. Although these producers realize that the total quantity of steel consumed cannot be greatly influenced by reductions in steel prices, they do know that the quotation of a delivered price only slightly below other quoted delivered prices may influence the placement of substantial orders with a particular producer. Since competition for available business is keen, and particularly so when low rates of operation make the "fixed" costs burdensome, a knowledge of the level at which competition must be met in quoting prices at a definite location is valuable in preventing completely disorganized markets that might prove disastrous to the industry.

The multiple basing point method of quoting delivered steel prices is a simple pricing medium which has evolved over a long period of time to meet the peculiar characteristics of the steel industry. It is an open price method of quoting delivered prices at diversified locations. Such open prices are similar to list prices which may be and are reduced to meet competition. As a pricing medium it permits the consumer to bargain with a number of producers for both steel and service at the lowest possible price and at the point where he needs it. It serves producers by permitting them to compete in diversified markets to obtain the volume and even flow of orders

necessary to economical operations. In essence, it provides an orderly medium by means of which consumers and producers of steel may trade to their mutual benefit. . . .

CONCLUSION

The Function of the Steel Industry in the National Economy

There remains one question of vital interest. Does the steel industry perform its proper function in the national economy?

As a Source of Raw Material. The steel industry primarily supplies a basic raw material for the production of other goods and services. Properly to perform its function it must continuously provide material meeting the exacting and changing demands of a great variety of industries each of which has diversified requirements. The steel industry has consistently done so, as is clearly evidenced by the industrial growth of the United States. The steel industry has developed new products and improved the old ones, both on its own initiative and in close cooperation with the steel consuming industries. In fact, if it were not for the steel industry, many of the major improvements in products of other industries would not have been possible. For example, the streamlined all-steel automobile would have been impossible to construct fifteen years ago since it depends upon the deep drawing qualities and strength of the modern cold rolled sheets. Due primarily to the recently introduced cold reduced tin plate certain fruits and vegetables are now available throughout the year as canned products. Beer could not be sold in cans so readily if the steel industry had not developed a special type of tin plate which can withstand internal pressure. New streamlined trains use high tensile, low alloy steels and stainless steels which have been developed by the steel industry. Special heat treatments have been discovered which, when applied to rails, insure better and longer service.

To produce these better products and still keep costs down, the steel industry over the years has constantly improved its equipment and has developed entirely new equipment such as the continuous sheet and strip mills which so recently revolutionized the industry. It cannot be said that the steel industry has been remiss in providing better materials to be used by other industries to make products and provide services. This functioning of the steel industry to supply new and better steels is particularly germane to the pricing problem since

quality improvements are usually not reflected in price series. In addition, many types of steel which are in actuality new products may be known by the names originally applied to the products they replaced and as a result the new products and the old may be included in single price series although they may have little or no homogeneity.

As a Factor in Employment. Steel prices would be even more important to the national economy if they influenced the amount of goods that could be sold by companies for which the steel industry is a source of supply, and so affected the rate of employment in those industries. This study has indicated that the price of steel is of negligible importance as a factor in the demand for goods made of steel because of the small percentage of the cost of the steel as related to the cost of the finished product. Steel prices have little effect on national production or employment. This is not to imply that the steel industry may charge any price its whim or fancy may dictate. Competition among producers, and bargain-driving purchasers with large orders to place, keeps prices at levels which sometimes do not even cover costs.

It has been charged by some that steel prices have remained firm in the face of falling demand, and as a direct result production and pay rolls have declined drastically. If the implications of this charge could be sustained it would be a serious indictment. But they cannot be sustained. This study has shown that the demand for steel is derived from the demand for goods made of steel. This demand depends in turn on such factors as the level of national income and confidence that in the future there will be opportunity for the profitable use of additional durable goods. The total demand for steel is inelastic; that is, the total quantity of steel bought from the industry would not be substantially different at any particular time if the price were higher or lower. The steel industry must have orders on hand before it can produce; steel is made to exacting specifications for particular uses; the very bulkiness of such steel items as might be made in anticipation of future demand prevents their heavy production for inventory. If there is lack of confidence in the future and declining national income, production and consequently hours of employment, will decrease despite all efforts of steel producers. Only confidence in the future and actual or anticipated increase in national income can create production and resultant employment in the steel industry.

Despite the negligible influence of price on demand for steel, and waiving the fact that the composite published price of steel is more flexible than critics often suppose, and the further fact that net yields received by the industry are more flexible than indicated by published figures, what adjustments would have to be made if steel prices were cut appreciably? Since substantial "fixed" costs must be met regardless of the amount of steel produced, prices cannot be out of line with total costs over any considerable period.

What costs could be adjusted if prices were substantially reduced when the industry was operating at 50 percent of capacity? Based on cost data of the United States Steel Corporation and its subsidiaries previously discussed, pay rolls would be approximately 50 percent of total costs at that rate of operation; goods and services purchased from others, 34 percent; taxes and depreciation and depletion about 7 percent each; and the remaining 2 percent of total costs would represent interest to bondholders and pensions to retired workers. There is no getting away from taxes; they must be paid. Depreciation and depletion charges could be overlooked for short periods, but not for long. If interest were not paid, the Company would be forced into bankruptcy. The remaining 84 percent of total costs represents payrolls and goods and services purchased from others. Goods and services purchased from others perhaps could be obtained at lower prices by sharp bargaining where the prices are not fixed by law as they are in the case of railroad rates. Payrolls remain. They are 50 percent of total costs. There is very little doubt that any appreciable cut in steel prices over the long run would have to be met by reducing wage rates.

As a Factor in the Growth of the Nation. This study has discussed the productive capacity of the steel industry and indicated the reasons why unused capacity may be present in certain periods, but excess capacity, in the sense that it is not necessary to the economic well-being of the industry and of the nation, is absent. It has been shown that assembly costs of raw materials, the geographical location of markets for products that may be economically produced together, the immobility of steel-making equipment, the huge investment required therein, and the historical development of individual companies are more important than the pricing method in accounting for the existence of more capacity in certain districts than local consumption might seem to dictate. It has been pointed out that steel-making capacity has developed in every area where raw material

assembly costs, costs of production and nearness to consuming markets have been conducive to such development. On these bases it cannot be contended that the price structure of the steel industry has been instrumental in the preservation of uneconomic capacity nor in the prevention of the expansion of economic capacity.

In brief, the steel industry has efficiently performed its function in the national economy, has materially assisted in the development of this country, and has ever been prepared to meet the needs of the nation in each forward surge of prosperity as well as in times of national emergency.

PRICES AND COMPETITION IN THE STEEL INDUSTRY

2. The Position of the F. T. C.

FEDERAL TRADE COMMISSION¹

The F. T. C. here contends that in the steel industry producers approach consumers with a united front and that price competition has been replaced by gentlemanly emulation in the art of making friends and influencing people. The Commission further contends that monopoly is inconsistent with the tenets of capitalism and eventually results only in government control.

The original basing point system in the industry was the so-called Pittsburgh Plus, under which steel was sold at a delivered price equal to the Pittsburgh price plus freight from Pittsburgh. Other basing points have since been established, and the present is a multiple system. . . .

VISIBLE EFFECTS OF IDENTICAL DELIVERED PRICES

When the basing-point system is operating smoothly, it appears that quotations on steel of a given quality and quantity are identical at any given point of delivery. The formula, covering base price

¹ This selection is reprinted from Monograph No. 42, Temporary National Economic Committee, Washington: U. S. Government Printing Office, 1941, pages 1-6.

and rail freight from the governing basing point, is known to all members of the industry. Mills located at points other than the basing point use the standard formula as if they were located there. . . .

On the surface, the producers approach the consumer with a united front. Competition in such crude matters as price and quality has been put aside, and all that seems to remain is a gentlemanly emulation in the art of making friends and influencing people.

Secret discounts or concessions in quantity or quality may continue to exercise an influence of a more material character in the case of strong and influential private purchasers. Small and medium-sized private buyers pay the formula price. Public bodies, not being permitted to accept secret favors, have no legal reason for choice, there being no lowest bidder, and are reduced to making awards by lot. . . .

Since the delivered price quoted is the same among bidders with many different freight costs, the net amount received or mill realization varies among the bidders, depending on their distance from the point of delivery.

A plant not located at a basing point will charge even to customers located at its own door the base price plus freight from the governing basing point. But in selling to a customer located at the basing point it will quote only the base price, and will deduct the actual freight from its plant to the customer at that basing point, leaving as a net return the base price minus freight.

A plant located at a basing point will sell its product at all points within the area where the delivered price is governed by that basing point, at the same base price, plus the actual rail freight to point of delivery. When bidding outside this area, however, it must "absorb" a part of the freight, which means accepting a lower net price in order to match the delivered price which is computed by the standard formula from some other basing point. That is, outside the area governed by its own basing point, the basing-point mill will accept varying net prices in the same way as a mill not located at a basing point.

Thus the immediate effect of this artificial price system is to distort the area of distribution of each mill, in such a way that its net return per ton of steel from different customers is generally different.

The customer who is nearest the place of production does not necessarily receive the lowest delivered price for steel.

If the nearby place of production is not a basing point, the cus-

customer located there must nevertheless pay the equivalent of rail freight from the governing basing point.

Studies of actual sales of steel show that mills deliver steel in the neighborhood of other mills that are producing steel of the same kind, and these in turn ship their product to the neighborhood of their rivals, or even beyond. Physically this cross-hauling is a pure waste; it could be justified only if some other form of economy were to be obtained by means of an interchange of identical products.

Between two interconnected power systems, for example, power may flow in one direction at one time and back at another, because of differences in the timing of peak loads. But no such excuse can be found for cross-hauling in steel. Occasionally an abnormal demand for steel may appear first in one place and then in another, so as to overload the nearest producing plants and require importation from others. The constant cross-hauling of steel, however, is a different matter. It is a continual and simultaneous process. It unquestionably shows that mills do not ordinarily supply the nearest customer before looking to more distant ones. The cost of the wasted freight must be borne in the first instance by the injured communities and in the last analysis by the general public in one form or another. The cost is actually covered by maintaining base prices so high that a producer can ship steel for long distances past another producing mill and still find the business worth taking.

Finally, the evidence at hand shows what is inherent in the pricing plan, that a customer not located at a basing point but located near a steel mill is deprived of the benefit of the low haulage cost from the nearest mill to his door. The neighboring mill will, to be sure, offer him a bid, but no better than he can get from mills farther away. Under this pricing system he would be as cheaply supplied if the nearby mill did not exist.

To call the relation of a mill to its nearest customers a "local monopoly" is to confuse the issue. The correct term is "advantage of location"; it represents a natural physical fact: low cost of transportation. This is no more properly called monopoly than would be the possession of a low-cost plant or an unusually efficient personnel. Since the avowed purpose of competition is to allow the consumers the use of the lowest cost methods, any economy in the physical factors of production, including economy of transportation, is a legitimate competitive factor.

Moreover, a customer so located that steel can be shipped to him

by barge or by truck, at less than railway freight costs, is not usually allowed the benefit of this advantage. The mill may ship by water, or by truck, but with relatively few exceptions the quoted price is based on rail freight. It would seem that the reason for using rail freights in all cases is that only by so doing can identical delivered quotations be conveniently assured.

The system appears to be designed not as a means of computing actual delivered costs, but of assuring the absence of price competition at any point of delivery. This situation must involve a general and continuous waste, since it would obviously be more efficient if customers were able to buy at a lower cost from the nearest available source. It is a system that makes a profit for the producer by wasting the customer's money.

IMPLICATIONS OF IDENTICAL DELIVERED PRICES

It is reasonable to assume that the industry succeeds or expects to succeed in making the customer pay for the wastes of cross-hauling, and enough more to furnish a motive for the self-discipline involved in an identical delivered price system. The base prices established must be intended to produce a profit on the business as a whole, even though as an incident they may require a company to accept a comparatively low net return on some particular sale.

Experience indicates, in fact, that when the system temporarily breaks down, prices fall.

The pricing system in steel is often called an "umbrella," the implication being that it holds up a price level under which mills of all degrees of efficiency or obsolescence find shelter. There appears to be a tendency for obsolete mills to survive after new and more efficient plants have entered the field, resulting in excess capacity and a low average percentage of operation. As will be noted later, the value of an old plant would be more easily defended if it actually served a neighboring market at a net saving to the customers.

Overequipment in the industry, with failure to eliminate the least efficient plants, tends to discourage technological progress, but its chief effect appears to have been to accustom the industry to the idea of a low ratio of production to capacity. The industry has felt entitled to a price level that will allow it to make a profit when operating at less than 40 percent of capacity, although this required percentage increased with the base price reductions of June, 1938.

But since the capital costs are a large factor in steel making, in

effect the public is required to pay, on a given tonnage of steel, the capital charges on a larger plant investment than is needed to produce that tonnage. The price flurry of June, 1938, reduced base prices; the industry was forced to operate at better than 50 percent of capacity to make a profit. This change was regarded by the industry as deplorable, though it led to large increases in production and consequently in employment. "The situation was competitive," Mr. Grace said, and he hoped that it had been cured."

If the concept of price adopted in the Pittsburgh Plus case in 1924 is sound under the present law, the basing-point practice may be regarded as one of systematic price discrimination designed to serve the interests of the sellers, as a group, against the interests of such buyers as desire price competition, and of consumers in general. . . .

To summarize the effects which we have reason to believe follow from the system of identical delivered prices: The wastes of cross-hauling and of excess capacity and high capital overhead are saddled on the consumer as if they were legitimate costs. Under the guise of freight costs, buyers located at a distance from a basing point even though they purchase from a mill in their own city are charged what amounts to a penalty.

Thus the advantage or disadvantage of location for many buyers is an artificial one, which may be altered by arbitrary private decree through a change in the basing point. Price competition in the steel industry, during all periods when the system is working, is eliminated. High prices, not in conformity with the law of supply and demand, place unreasonable limitations on use of the material. The effect, when combined with that of similar artificial prices in many other lines of production, is a depressed condition which can be kept from utter collapse only by repeated doses of public subsidy. . . .

MONOPOLY LEADS TO GOVERNMENT CONTROL

To some extent the steel industry has eliminated obsolete plants, following the process of merger, the choice of plants to be closed being made arbitrarily by those in control of the merger. The Commission calls attention to the fact that here, on a private scale, we see the substitution of arbitrary decision for the impersonal decisions of the free market in an important industry. But the philosophy of the competitive theory which underlies capitalism is that natural death in industry, under the forces of fair competition, is more

merciful than death by fiat, and also more clearly in accord with the public interest. It is fair and reasonable that the best man should win, and that the loser should be obliged to hunt for some other source of income. But it is offensive to peace and good morals that a man should be driven out of business by financial power, whether his throat is cut in a sudden attack or whether he is captured first and killed later.

The experience of business in certain countries shows that if the natural elimination of the less efficient by competition is prevented, and elimination by private fiat is substituted, fiat will finally become the function of government. When the elimination of any members of an industry becomes the function of government, practices and injustices of an alarming kind have been observed.

The Commission points out that the drift toward monopoly involves the disquieting prospect that decisions, once the product of an impersonal economic necessity, may become the function of private or public dictators under conditions that offer the victims no avenue of escape.

The ability to decide on a price and hold to it regardless of demand, which is the essence of monopoly, is a prime factor in establishing the vicious circle of high prices, restricted production, and reduced employment so widely condemned as "scarcity economics." Starting with a price level designed to protect obsolete and unnecessary plants, and therefore having long periods of part-time operation and high overhead, the steel industry has established a habit of low production and high cost that seems to justify high prices. The demand is thereby restricted, and the vicious circle is completed by the continuance of high costs based on restricted output.

Moreover, in a product like steel, which serves as raw material for other products, and for the machines with which other products are made, any unnecessary cost will be multiplied from step to step throughout industry so far as the influence of steel extends. The consumer is burdened with monopoly costs of steel multiplied several fold.

Unless and until this vicious circle of scarcity and unemployment can be broken, it is clear that it will act to grip the business world in paralysis. The practices of the steel industry alone may not ruin the capitalist system, but if they are reinforced by monopolistic practices in other industries, the total effect may come to be a strangulation of the blood stream of trade. Monopoly, like counterfeiting, is a profit-

able business for the first comer, but is subject to diminishing returns when it is more widely practiced.

There appears to be only one way in which the circle of high prices, low production, and unemployment can be broken. That is through the restoration of price competition in accord with the ancient rule of capitalism, that at a low rate of production an industry ought to be losing money. The alternative is the abandonment of capitalism and experimentation with authoritarian controls.

Capitalist theory has always held that industry was expected to produce in the hope of profit, not that it was expected to stand idle at a profit. If the rewards of full-time industrial production are to be given equally for half-time work it is inevitable that labor and agriculture must also be supported on a half-time basis.

The Commission is not impressed with the argument that as steel output falls off and costs rise, it is necessary or desirable to maintain prices in an effort to break even. Such an argument violates the fundamental principles of capitalism. On the contrary, it is necessary and desirable to reduce prices in a falling market in an effort to increase tonnage and cut costs.

If free competition is not restored, the alternative will be public control of the details of business policy, including prices, wages, and production schedules. If private monopoly is permitted to spread through the greater part of the business system, public control appears to be unavoidable.

The Commission calls attention to the sequence of events in countries where the cartel form of monopoly has been encouraged. Centralization of power is the forerunner of a state in which business, both small and large, is entirely subject to the direction of the government.

To the Commission the lesson seems clear that democratic liberty requires, as one of its foundation stones, the preservation and protection of a sufficient area of free capitalism to balance the necessary centralization of public utilities and other natural monopolies.

Freedom depends on preserving a wide field of opportunity for free initiative. Universal price controls constitute a repudiation of economic freedom and a demand for some form of authoritarian government.

PRICES AND COMPETITION IN THE STEEL INDUSTRY

3. Judge Gary's Solution¹

E. H. GARY²

Judge Gary here pleads for governmental supervision over steel prices through some responsible agency like the Interstate Commerce Commission.

"I realize as fully, I think, as this committee that it is very important to consider how the people shall be protected against imposition or oppression as the possible result of great aggregations of capital, whether in the possession of corporations or individuals. I believe that is a very important question, and personally I believe that the Sherman Act does not meet and will never fully prevent that. I believe we must come to enforced publicity and governmental control, even as to prices, and, so far as I am concerned, speaking for our company, so far as I have the right, I would be very glad if we had some place where we could go, to a responsible governmental authority, and say to them, 'Here are our facts and figures, here is our property, here our cost of production; now you tell us what we have the right to do and what prices we have the right to charge.' I know this is a very extreme view, and I know that the railroads objected to it for a long time; but whether the mere standpoint of making the most money is concerned or not, whether it is the wise thing, I believe it is the necessary thing, and it seems to me corporations have no right to disregard these public questions and these public interests."

"Your idea then," said Martin Littleton of the committee, "is that cooperation is bound to take the place of competition and that cooperation requires strict governmental supervision?"

"That is a very good statement," replied the Judge.

¹ This selection is reprinted from the final *Report of the Stanley Committee*, House Report 1127, 62nd Congress, 2nd Session, 1911.

² Elbert Henry Gary (1846-1927) was chairman of the board of directors and president, U. S. Steel Corporation.

PRICES AND COMPETITION IN THE TIRE INDUSTRY¹

LLOYD G. REYNOLDS²

Professor Reynolds here describes how concentration of production in the hands of a few large firms exists in the rubber-tire industry without entailing any planned exploitation of consumers. He points out, however, that although consumers have not been exploited directly, the industry is not organized in the most efficient manner and tires are not sold at the lowest possible prices.

The rubber-tire industry forms a particularly good object for investigation. Its highly competitive character has led financial journals to term it "chaotic," "murderous," and "insane." Moreover, it possesses two characteristics—fewness of sellers and differentiation of the product—which have been in the forefront of recent theoretical discussion. The purposes of this paper are to inquire how far the theory of prices as it now stands is adequate to explain the behavior of the tire industry, and to make certain suggestions for public policy.

I

The principal features of the industry are so well known as to require no elaboration. Three-quarters of all tires are produced by four companies—Goodyear, Firestone, United States Rubber and Goodrich—of which three have their largest plants in Akron, Ohio. The number of tire producers has fallen from 178 in 1921 to 32 in 1933, while the percentage of all tires produced by the Big Four has increased from 60 to 75 during this period. There are no apparent restrictions on entrance to the industry, but not a single new producer has gained a foothold during the past fifteen years.

The Big Four obtain tire fabric from their own textile mills. Crude rubber is purchased primarily in the Singapore market by

¹ This selection is reprinted by kind permission of the publishers and author from Lloyd G. Reynolds, "Competition in the Rubber-Tire Industry," *American Economic Review*, Volume XXVIII, September, 1938, pages 459-468.

² Lloyd George Reynolds (1910-) is now professor of economics and associate director of the Labor Management Center, Yale University.

company buyers. Inventories amounting to at least six months' requirements are usually carried; and, since it is impossible to hedge these large purchases, a decline in rubber prices means large inventory losses. The great decline of rubber prices during the years 1920-32 undoubtedly contributed to the elimination of small producers and lowered the profits of the larger firms. The process of tire production is now almost entirely mechanized, and fixed costs are relatively large. The heaviest investment is in curing (vulcanizing) equipment which also sets the limit to production capacity, since only a limited number of tires can pass through the curing pits in a given time.

The market for tires is of two sorts: (1) purchases by automobile manufacturers for original equipment. Ford ordinarily buys most of its tires from Firestone, Chrysler from Goodyear, and General Motors from United States Rubber, but each obtains some tires from other sources. Demand in this market is very inelastic and fluctuates violently with fluctuations in automobile production. (2) Renewal purchases by consumers. Demand in this market is also inelastic, and until 1928 showed a sharply rising trend. After that date improved tire quality more than offset increased automobile registrations, and the trend of renewal demand turned down (Table I).

TABLE I PRODUCTION OF AUTOMOBILE TIRES, 1922-36¹ (*millions*)

Year	Orig. Equip.	Renewal	Total	Year	Orig. Equip.	Renewal	Total
1922	9.9	28.7	40.9	1930	13.6	38.3	51.0
1923	15.6	28.6	45.4	1931	9.6	37.5	49.0
1924	13.9	34.4	50.8	1932	6.0	32.9	40.1
1925	16.4	40.1	58.8	1933	10.3	32.8	45.3
1926	16.7	40.0	60.1	1934	14.5	31.9	47.2
1927	13.0	47.9	63.6	1935	20.9	29.3	51.2
1928	16.8	53.6	75.5	1936	23.1	29.9	58.1
1929	20.5	47.1	69.8				

The situation just outlined is one in which price agreement might reasonably be expected: a few large producers, located in the same city, with heavy overhead costs, and faced with an inelastic demand. The uniform list prices of the leading producers, too, might be taken as evidence of agreement. Actually, however, this uniformity means

¹ Sources: B.F.D.C., Rubber Division, Circular 2865 (1922-29); Rubber Manufacturers' Association (1930-36).

merely that the producer who is willing to sell cheapest sets the price for all. A reduction by one company is followed immediately by all other important producers. This is not always true of price advances, and a company which has increased prices is occasionally forced to withdraw the increase because the others are unwilling to follow. There is no consistent pace-setter, price changes being announced now by one firm and now by another.

This failure to achieve a durable price agreement is remarkable enough to deserve explanation. The personality of Harvey Firestone, Senior, was undoubtedly an important factor during his lifetime. Mr. Firestone has been the Henry Ford of the tire industry, making tires more cheaply than most of his competitors, selling them in his own way and at his own price. The output of the Firestone company is sufficiently large so that no price of which Mr. Firestone disapproved could last long. The violent fluctuations of rubber prices have been an additional obstacle to price agreement. When the price of rubber is changing rapidly there is a conflict of interest between the Big Four who have large rubber inventories and the smaller firms who buy their rubber on the spot market; and it would be difficult to reconcile this conflict. Moreover, the mere fact that a fixed price for tires would require frequent alteration introduces grave administrative difficulties.

The most important reason for the persistence of price-competition, however, is probably the rise of the large retailer. In the late twenties several retail chains decided to enter the tire business. By 1935 Sears-Roebuck, Montgomery-Ward, Standard Oil and other large oil companies were making one-quarter of the renewal sales. These tires, though sold under private brands, were all manufactured by the Big Four. Most manufacturers were faced after 1928 with extensive unused capacity and were eager to secure orders at any price above direct cost. Goodyear, for example, sold to Sears-Roebuck at 35 per cent less than the price to dealers of Goodyear's own first-line tires. The factory cost of the two tires was almost exactly the same, and they were substantially uniform in quality. This buying advantage enabled Sears to undersell independent dealers by as much as 30 per cent.

When independent dealers began to feel the bite of mass-distributor competition in the late twenties, they came to the manufacturers demanding lower prices. The manufacturers, in order to protect the independents who are still an essential part of their dis-

tributive system, were obliged to reduce prices on their own brands. The manufacturers were thus placed in the amusing position of competing with themselves, i.e., with their own tires sold under the chain brands. They were also compelled to make price-reductions because of the aggressive policy of Mr. Firestone, who, having no mass-distributor contracts, constituted himself the champion of the small dealer and entered into a prolonged price-duel with Sears-Roebuck. It is not too much to say the initiative in tire pricing since 1926 has lain with Sears and Firestone, and that they are largely responsible for the great decline.

Large consumers as well as large retailers have received special price concessions. The automobile companies, by playing one tire company against another and by threatening to go into production for themselves, have obtained tires at prices about 40 per cent below the price to tire dealers. Owners of fleets of cars or trucks are also permitted to buy tires directly from the manufacturers. Sales to these "commercial accounts" are nominally made at 20 per cent less than the list price to consumers (i.e., somewhat above the list price to *dealers*, which is usually 30 per cent below consumers' list). This standard allowance, however, has been merely a jumping-off-point for additional secret discounts, which in periods of price-warfare have sometimes amounted to more than 60 per cent of the list price.

The concessions to large tire buyers have been too great to be explained entirely by economies in production and selling costs. In the one case which has been investigated, the manufacturer's profits appear to have come almost entirely from his sales to independent dealers. This discriminatory price-structure, however, has not been developed and imposed by manufacturers as a means of maximizing their profits. Sales to mass distributors or commercial accounts are in direct competition with sales to independent dealers, and profitable discrimination is therefore impossible. Discrimination has been forced on the manufacturers by the combination of unused capacity and the bargaining pressure of large buyers.

Product differentiation has been adopted as a means of securing competitive advantage without the risks of price-competition. Each producer tries through intensive advertising to convince the public that his tires are consistently better than all other brands. Selling expenses, while not large by comparison with such industries as tobacco, are appreciable and appear to be increasing. In 1926 the selling expenses of one leading company (exclusive of freight, ware-

housing, and shipping) amounted to \$1.30 per tire, or 11 per cent of the manufacturer's selling price. By 1933 this had increased to \$1.53 per tire, or 30 per cent of the selling price. Scattered test data indicate that no one tire actually enjoys a continuous superiority over all others. Development of a new process may give one producer a clear superiority for a few months. Such innovations, however, quickly become common knowledge and the advantage of the innovator is wiped out. The great improvement in tire quality during the past 30 years is undoubtedly due to constant repetition of this cycle of invention and imitation.

The foregoing description of the industry may be summed up by saying that it is an imperfect oligopoly in which the oligopolists have been unable to achieve a durable price agreement. What sort of economic behaviour is to be expected of such an industry?

Economic theorists who have attacked this problem have observed that in oligopolies the policy of any one firm must take into account the possible reactions of other firms. The differing results which theorists have obtained are to be explained by the different assumptions they have made as to the types of reactions to policy which are to be expected. Boulding remarks that when fewness of sellers is combined with product differentiation the way in which competitors will react to a price cut may be unpredictable both to the economic analyst and to the business man concerned. In such circumstances price cuts and price rises may be cumulative in nature and equilibrium is likely to be unstable within wide limits.

Price instability can be avoided if the industry can escape from conditions of imperfect oligopoly into perfect oligopoly. If consumers are relatively indifferent as between the products of several competitors, the elasticity of demand for the individual firm will be large and the element of imperfection will be small. In this case there will be little chance for one producer to cut prices without provoking retaliation. And industry under such conditions may find it worth while to assume that demand for each firm is completely elastic and it may become a convention of the industry that all price cuts shall be followed. If this occurs, the situation is one of perfect oligopoly, price leadership occurs and if the oligopolists are approximately the same size, prices are set stably at the level desired by the lowest-cost producer.

It appears that this has happened in the rubber-tire industry. The Big Four apparently regard their tires as sufficiently close substitutes

for each other in the eyes of consumers so that all price cuts are automatically followed and identical prices are maintained. Because of advertising and merchandizing facilities the products of the small manufacturers are not close substitutes and the big companies successfully exceed their price by a comfortable margin.

Thus far the behaviour of the industry seems to fit the theoretical pattern fairly well. But the profit history of the industry and the existence of excess capacity are not what one would expect. According to oligopoly theory, the price arrived at by price leadership should be higher than the perfectly competitive level, profits should be higher than the same industry would earn under perfect competition, and the elements of monopolist restriction responsible for these results would indicate less plant capacity than competitive operations would call forth. It will be of some interest to describe the main differences between the industry's actual and expected behaviour, and to suggest possible explanations of these deviations.

TABLE II TIRE PRICES AND COST OF PRODUCTION, 1921-33

Year	Cost of a Tire and Tube	Cost Index (1927=100)	Index of Tire Prices (1926=100)
1921	13.94	139.4	179.0
1923	10.70	107.0	109.5
1925	11.80	118.0	98.6
1927	10.00	100.0	76.3
1929	8.20	82.0	55.6
1931	5.13	51.3	43.8
1933	4.22	42.2	40.4

1. Mechanization of production, chemical discoveries, and the downward trend of crude rubber prices since 1920 have greatly reduced the cost of producing a tire. Tire prices seem to have declined to about the same extent as costs (Table II). A selected group of tire companies earned 4.3 per cent annually on stockholders' investment from 1922 through 1935, while the average rate of profit for all manufacturing industry over this period was 7.6 per cent (Table III). Although this does not prove that tire profits have been less than "normal," it is safe to say that they have been below the general average. It must be added, however, that inventory losses are partly responsible for the low earnings of the industry. Tire companies may very well have made average profits on their strictly manufacturing operations.

TABLE III PROFITS IN TIRE MANUFACTURING AND IN ALL MANUFACTURING, 1919-35

Year	PERCENTAGE PROFIT IN		Year	PERCENTAGE PROFIT IN	
	Tire Mfg.	All Mfg.		Tire Mfg.	All Mfg.
1919	19.0	13.1	1928	1.3	9.8
1920	2.1	9.6	1929	5.9	13.4
1921	-12.6	1.9	1930	-4.8	7.1
1922	3.6	9.1	1931	-1.7	3.3
1923	6.0	10.0	1932	-2.8	0.3
1924	7.3	8.9	1933	1.6	3.1
1925	18.9	10.7	1934	2.4	4.3
1926	8.6	11.0	1935	4.1	6.7
1927	6.9	8.4			

2. Unused plant capacity has existed continuously since 1927. Between 1927 and 1929 the capacity of the industry was increased by about 50 per cent. The trend of renewal sales, however, turned downward in 1928 and after 1929 original equipment sales also declined. The recovery since 1933 has been insufficient to take up the slack in productive capacity. The capacity of the industry was estimated at something between 82 and 98 millions of tires in 1934, and large plants have been constructed by Goodyear and Ford since that date. The total output of tires in 1936 was only 58.1 million. It would appear that even if no additional plants are built the industry will suffer from excess capacity for some years to come.

The burst of plant construction in the late twenties seems to have been due to a faulty forecast of demand. It is more difficult to understand how investors, in the face of the poor dividend record of the industry, were induced to purchase the common stock by which the new construction was largely financed. The explanation is probably to be found in the general optimism and the uncritical acceptance of new issues which prevailed during 1928 and 1929.

The entrepreneur of theory, when confronted with less than "normal" earnings, is supposed to disinvest. During the twenties, however, despite low earnings, some 40 millions were reinvested as compared with 30 millions distributed in common dividends. At the present time large annual additions are once more being made to surplus, but only Firestone has resumed common dividends. The explanation may be partly that corporation officials are interested in developing and maintaining a large organization as well as in securing returns to the stockholders. It is very well for the calculating outsider

to suggest that a business should be allowed to stagnate or waste away when it no longer yields normal returns on investment. To an official within the institution, however, such a proposal seems somehow treasonable. The corporation is a petty state whose borders, if they cannot be extended, must at least be maintained. A variety of motives, desire for influence and prestige as well as for salary, unreasoning loyalty as well as rational self-seeking, probably enter into the decisions of executives.

It should also be remembered that over the past fifteen years disinvestment has been rendered difficult by the pace of technical development. New processes require new machinery, new tire sizes require new curing molds. It has accordingly been necessary to discard machinery long before it is completely depreciated, and to buy new equipment even when existing plant was not returning a reasonable profit. Disinvestment has been difficult, too, because of the great size of the Akron plants. Where production is carried on in a considerable number of identical units, one or more can be closed down with relative ease. One part of a large production unit, on the other hand, cannot be allowed to deteriorate without disrupting the entire production process. The advantages of decentralized production, finally, have led to the building of branch plants in California, Alabama and elsewhere, even at the cost of leaving Akron plants partially idle.

3. It has been stated by Chamberlin and others that under *imperfect* competition a different sort of excess capacity tends to develop. Consumer preference, created by trade-marking and advertising, maintains in existence too many producers, each of less than the optimum size. If the resources employed in the industry could be rearranged into fewer and larger units, a greater output could be obtained at lower unit cost. Is there evidence that this sort of excess capacity exists in the tire industry?

The optimum scale of plant for tire production cannot be determined from the available data, but it is almost certain that the huge Akron plants are well beyond the optimum. The economies of machine production are fully realized with a relatively small plant. Beyond this point administrative difficulties increase, and in plants of the Akron size coordination of effort becomes a pressing problem. Although the Big Four are able to purchase their materials more cheaply than smaller firms, it is the general opinion in the trade that their unit production costs are at least as high as those of the small

producers. The *total* unit costs of the Big Four are considerably above those of small producers because of their greater selling expenditures. The consumer preference resulting from their advertising, however, enables them to sell their tires for from 10 to 20 per cent more than the small producers receive for tires of equal quality. The selling expenditures of the large firms, in other words, have raised both their cost and demand curves so that their equilibrium-price is relatively high.

It is apparent that the resources employed in tire production are not organized in the most efficient way, but the reason is the opposite of that usually given. Plants seem to be too large rather than too small. Why, then, do the smaller firms not expand at the expense of the larger, bringing both nearer to the optimum scale? The chief reason is probably that the great cost of a national selling organization and a national advertising campaign renders expansion very difficult. It is not profitable to undertake national distribution unless sales can be increased rapidly enough to absorb the large selling expenditures without a marked rise in unit costs. But consumer preference for established brands is so strong that rapid expansion of sales is unlikely. It is therefore not surprising that several medium-sized firms have gone bankrupt in the attempt to achieve national distribution. The small firms which have survived have concentrated their sales efforts on the larger population centers, and usually on only one section of the country.

Much of the selling expenditures of the large firms appears to constitute uneconomic use of resources, and this for two reasons: (a) there is no evidence that the tires of the large producers differ appreciably in quality. Sales promotion efforts thus appear to have little informative value except, perhaps, in speeding the adoption of such innovations as the balloon tire and the life-guard tube. (b) It was pointed out above that the Big Four owe their continued dominance in the industry largely to consumer preference developed through advertising. The argument that advertising makes possible the economies of large-scale production seems in this case to prove too much. For here advertising seems to be the main factor preventing the expansion of small, efficient producers, while keeping in existence plants of more than optimum size.

To sum up: the important differences between the actual and hypothetical behavior of the industry appear to have arisen from

(1) cyclical and secular shifts of demand which were not correctly anticipated by producers, (2) the "bumpiness" of selling costs, combined with imperfect knowledge of the shape of the sales surface, (3) the technical difficulties of withdrawing capital from a large integrated production unit, and (4) the management of the enterprises by salaried officials rather than owner-managers.

III

The operations of this industry suggest a number of reflections concerning public policy. Concentration of production in the hands of a few large firms can apparently exist without any planned exploitation of consumers. The interest of consumers has been protected in this case by the efficiency and uncooperativeness of Mr. Firestone, and by the bargaining power of large retailers. It is difficult to see how manufacturers could succeed in fixing tire prices much above the competitive level without the cooperation of the large distributors. Such cooperation is unlikely to develop. The distributors are not interested in helping the manufacturers to make profits, but rather in securing a large turnover of goods on a small margin at the lowest possible price. Their interest thus corresponds more closely to that of consumers than to that of the manufacturers. It seems likely that as chain-store organizations grow in size and influence, they may come to be one of the most important defenses of the consumer against price-combination among manufacturers.

Although consumers have not been directly exploited, it is evident that the industry is not organized in the most efficient way and that tires are not sold at the lowest possible prices. Investment in the industry is excessive, many plants are uneconomically large, and selling expenditures are out of proportion to any real benefits resulting from product differentiation. The removal of these elements of inefficiency is a matter of administration rather than for criminal legislation. The only people who are at present in a position to plan for the industry as a whole, however, are the directors of the Big Four. It may therefore be argued that they should be brought together and encouraged to rationalize the industry. But in this case, must there not be some guarantee that inefficiency will really be eliminated and prices maintained at a reasonable level, and must there not be some public body to supervise the process? And will not public supervision of profits lead to regulation of prices, investment,

and other major matters of business policy? This is not necessarily undesirable. It is desirable, however, that the implications of such a course be clearly recognized at the outset.

For industries in which the wastes of competition are very large, supervised rationalization may be considered advisable. The tire industry, in spite of the inefficiencies noted above, has rendered marked benefits to consumers—benefits which would almost certainly not have accrued under conditions of complete monopoly. Continued enforcement of competition would seem to be wise public policy in this particular case. This would probably mean a continued low level of earnings for tire companies, but the economic effect of low earnings would be beneficial. Less money would be available for reinvestment, it would be more difficult for the companies to borrow, and unused productive capacity might in this way be eliminated over a period of years.

CHAPTER 12

The Public Control of Monopoly

THE SHERMAN ACT OF 1890

U. S. CONGRESS¹

Here is the text of the Sherman Act, which makes every contract, combination, or conspiracy in restraint of interstate commerce illegal. The passage of the Act was the first major attempt by the federal government to control the trust problem.

SEC. 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal. Every person who shall make any such contract or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

SEC. 2. Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

SEC. 3. Every contract, combination in form of trust or otherwise, or conspiracy, in restraint of trade or commerce in any Territory of the United States or of the District of Columbia, or in restraint of trade or commerce between any such Territory and another, or between any such Territory or Territories and any State or States or the District of Columbia, or with foreign nations, or between the District of Columbia and any State or States or foreign

¹ Sherman Act of July 2, 1890, 51st Congress, 1st Session. *Statutes of the United States*, Volume 51, Chapter 647, page 209.

nations, is hereby declared illegal. Every person who shall make any such contract or engage in any such combination or conspiracy, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding five thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court.

SEC. 4. The several circuit courts of the United States are hereby invested with jurisdiction to prevent and restrain violations of this act; and it shall be the duty of the several district attorneys of the United States, in their respective districts, under the direction of the Attorney General, to institute proceedings in equity to prevent and restrain such violations. Such proceedings may be by way of petition setting forth the case and praying that such violation shall be enjoined or otherwise prohibited. When the parties complained of shall have been duly notified of such petition the court shall proceed, as soon as may be, to the hearing and determination of the case; and pending such petition and before final decree, the court may at any time make such temporary restraining order or prohibition as shall be deemed just in the premises.

SEC. 5. Whenever it shall appear to the court before which any proceeding under section four of this act may be pending, that the ends of justice require that other parties should be brought before the court, the court may cause them to be summoned, whether they reside in the district in which the court is held or not; and subpoenas to that end may be served in any district by the marshal thereof.

SEC. 6. Any property owned under any contract or by any combination, or pursuant to any conspiracy (and being the subject thereof) mentioned in section one of this act, and being in the course of transportation from one State to another, or to a foreign country, shall be forfeited to the United States, and may be seized and condemned by like proceedings as those provided by law for the forfeiture, seizure, and condemnation of property imported into the United States contrary to law.

SEC. 7. Any person who shall be injured in his business or property by any other person or corporation by reason of anything forbidden or declared to be unlawful by this act, may sue therefor in any circuit court of the United States in the district in which the defendant resides or is found, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the costs of suit, including a reasonable attorney's fee.

SEC. 8. That the word "person," or "persons," wherever used in this act shall be deemed to include corporations and associations existing under or authorized by the laws of either the United States, the laws of any of the Territories, the laws of any State, or the laws of any foreign country.

Approved, July 2, 1890.

THE FEDERAL TRADE COMMISSION ACT OF 1914

U. S. CONGRESS¹

The following is part of the text of the Federal Trade Commission Act, which creates a new agency to enforce methods of "fair" competition.

An Act To create a Federal Trade Commission, to define its powers and duties, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That a commission is hereby created and established, to be known as the Federal Trade Commission (hereinafter referred to as the commission), which shall be composed of five commissioners, who shall be appointed by the President, by and with the advice and consent of the Senate. Not more than three of the commissioners shall be members of the same political party. . . .

SEC. 5. That unfair methods of competition in commerce are hereby declared unlawful.

The commission is hereby empowered and directed to prevent persons, partnerships, or corporations, except banks, and common carriers subject to the Acts to regulate commerce, from using unfair methods of competition in commerce.

Whenever the commission shall have reason to believe that any such person, partnership, or corporation has been or is using any unfair methods of competition in commerce, and if it shall appear to the commission that a proceeding by it in respect thereof would be

¹ Federal Trade Commission Act of September 26, 1914, 63rd Congress, 2nd Session, *Statutes at Large of the U. S.*, Volume 38, Part I, Chapter 311, page 717.

to the interest of the public, it shall issue and serve upon such person, partnership, or corporation a complaint stating its charges in that respect, and containing a notice of a hearing upon a day and at a place therein fixed at least thirty days after the service of said complaint. The person, partnership, or corporation so complained of shall have the right to appear at the place and time so fixed and show cause why an order should not be entered by the commission requiring such person, partnership, or corporation to cease and desist from the violation of the law so charged in said complaint. Any person, partnership, or corporation may make application, and upon good cause shown may be allowed by the commission to intervene and appear in said proceeding by counsel or in person. The testimony in any such proceeding shall be reduced to writing and filed in the office of the commission. If upon such hearing the commission shall be of the opinion that the method of competition in question is prohibited by this Act, it shall make a report in writing in which it shall state its findings as to the facts, and shall issue and cause to be served on such person, partnership, or corporation an order requiring . . . [them] . . . to cease and desist from using such method of competition. . . .

The findings of the commission as to the facts, if supported by testimony, shall be conclusive. . . .

Any party required by such order of the commission to cease and desist from using . . . unfair methods of competition . . . may obtain a review of such order in said circuit court of appeals by filing in the court a written petition praying that the order of the commission be set aside. A copy of such petition shall be forthwith served upon the commission, and thereupon the commission forthwith shall certify and file in the court a transcript of the record as hereinbefore provided. Upon the filing of the transcript the court shall have the same jurisdiction to affirm, set aside, or modify the order of the commission as in the case of an application by the commission for the enforcement of its order, and the findings of the commission as to the facts, if supported by testimony, shall in like manner be conclusive.

The jurisdiction of the circuit court of appeals of the United States to enforce, set aside, or modify orders of the commission shall be exclusive.

Such proceedings in the circuit court of appeals shall be given precedence over other cases pending therein, and shall be in every

way expedited. No order of the commission or judgment of the court to enforce the same shall in any wise relieve or absolve any person, partnership, or corporation from any liability under the antitrust acts.

SEC 6. That the commission shall also have power—

(a) To gather and compile information concerning, and to investigate from time to time the organization, business, conduct, practices, and management of any corporation engaged in commerce, excepting banks and common carriers subject to the Act to regulate commerce, and its relation to other corporations and to individuals, associations, and partnerships.

(b) To require, by general or special orders, corporations engaged in commerce, excepting banks, and common carriers subject to the Act to regulate commerce, or any class of them, or any of them, respectively, to file with the commission in such form as the commission may prescribe annual or special, or both annual and special, reports or answers in writing to specific questions, furnishing to the commission such information as it may require as to the organization, business, conduct, practices, management, and relation to other corporations, partnerships, and individuals of the respective corporations filing such reports or answers in writing. Such reports and answers shall be made under oath, or otherwise, as the commission may prescribe, and shall be filed with the commission within such reasonable period as the commission may prescribe, unless additional time be granted in any case by the commission.

(c) Whenever a final decree has been entered against any defendant corporation in any suit brought by the United States to prevent and restrain any violation of the antitrust Acts, to make investigations, upon its own initiative, of the manner in which the decree has been or is being carried out, and upon the application of the Attorney General it shall be its duty to make such investigation. It shall transmit to the Attorney General a report embodying its findings and recommendations as a result of any such investigation, and the report shall be made public in the discretion of the commission.

Approved September 26, 1914.

THE CLAYTON ACT OF 1914

U. S. CONGRESS¹

This is the text of part of the Clayton Act, which was aimed at geographical price discrimination, tying contracts, holding companies, and interlocking directorates wherever these tended to lessen competition.

Be it enacted by the Senate and the House of Representatives of the United States of America in Congress assembled, . . .

SEC. 2. That it shall be unlawful for any person engaged in commerce, in the course of such commerce, either directly or indirectly, to discriminate in price between different purchasers of commodities, which commodities are sold for use, consumption, or resale within the United States or any Territory thereof or the District of Columbia or any insular possession or other place under the jurisdiction of the United States, where the effect of such discrimination may be to substantially lessen competition or tend to create a monopoly in any line of commerce: *Provided*, That nothing herein contained shall prevent discrimination in price between purchasers of commodities on account of differences in the grade, quality, or quantity of the commodity sold, or that makes only due allowance for differences in the cost of selling or transportation, or discrimination in price in the same or different communities made in good faith to meet competition: *And provided further*, That nothing herein contained shall prevent persons engaged in selling goods, wares, or merchandise in commerce from selecting their own customers in bona fide transactions and not in restraint of trade.

SEC. 3. That it shall be unlawful for any person engaged in commerce, in the course of such commerce, to lease or make a sale or contract for sale of goods, wares, merchandise, machinery, supplies, or other commodities, whether patented or unpatented, for use, consumption, or resale within the United States or any Territory thereof or the District of Columbia or any insular possession or other place under the jurisdiction of the United States, or fix a price charged therefor, or discount from, or rebate upon, such price, on

¹ Clayton Act of October 15, 1914, 63rd Congress, 2nd Session, *Statutes at Large of the U. S.*, Volume 38, Part I, Chapter 323, page 730.

the condition, agreement, or understanding that the lessee or purchaser thereof shall not use or deal in the goods . . . of a competitor or competitors of the lessor or seller, where the effect of such lease, sale, or contract . . . may be to substantially lessen competition or tend to create a monopoly in any line of commerce.

SEC. 4. That any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor in any district court of the United States . . . without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney's fee. . . .

SEC. 6. That the labor of a human being is not a commodity or article of commerce. Nothing contained in the antitrust laws shall be construed to forbid the existence and operation of labor, agricultural, or horticultural organizations, instituted for the purposes of mutual help, and not having capital stock or conducted for profits . . . nor shall such organizations, or the members thereof, be held or construed to be illegal combinations or conspiracies in restraint of trade under the antitrust laws.

SEC. 7. That no corporation engaged in commerce shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of another corporation engaged also in commerce where the effect of such acquisition may be to substantially lessen competition between the corporation whose stock is so acquired and the corporation making the acquisition or to restrain such commerce in any section or community or tend to create a monopoly of any line of commerce.

No corporation shall acquire, directly or indirectly, the whole or any part of the stock or other share capital of two or more corporations engaged in commerce where the effect of such acquisition or the use of such stock by the voting or granting of proxies or otherwise may be to substantially lessen competition between such corporations, or any of them, whose stock or other share capital is so acquired, or to restrain such commerce in any section or community or tend to create a monopoly of any line of commerce.

This section shall not apply to corporations purchasing such stock solely for investment and not using the same by voting or otherwise to bring about, or in attempting to bring about, the substantial lessening of competition. Nor shall anything contained in this section prevent a corporation engaged in commerce from causing the formation

of subsidiary corporations for the actual carrying on of their immediate lawful business or the natural and legitimate branches or extension thereof or from owning and holding all or a part of the stock of such subsidiary corporations when the effect of such formation is not to substantially lessen competition. . . .

Nothing contained in this section shall be held to affect or impair any right heretofore legally acquired: *Provided*, That nothing in this section shall be held or construed to authorize or make lawful anything heretofore prohibited or made illegal by the antitrust laws, nor to exempt any person from the penal provisions thereof or the civil remedies therein provided.

SEC. 8. That from and after two years from the date of the approval of this Act no person shall at the same time be a director or other officer or employee of more than one bank, banking association, or trust company organized or operating under the laws of the United States, either of which has deposits, capital, surplus, and undivided profits aggregating more than \$5,000,000; and no private banker or person who is a director in any bank or trust company, organized and operating under the laws of a State, having deposits, capital, surplus, and undivided profits aggregating more than \$5,000,000, shall be eligible to be a director in any bank or banking association organized or operating under the laws of the United States. The eligibility of a director, officer, or employee under the foregoing provisions shall be determined by the average amount of deposits, capital, surplus, and undivided profits as shown in the official statements of such bank, banking association, or trust company filed as provided by law during the fiscal year next preceding the date set for the annual election of directors; and when a director, officer, or employee has been elected or selected in accordance with the provisions of this Act, it shall be lawful for him to continue as such for one year thereafter under said election or employment.

Approved October 15, 1914.

THE WEBB-POMERENE ACT OF 1918

U. S. CONGRESS¹

This is part of the text of the Webb-Pomerene Act, which exempts export combinations from the operation of the anti-trust laws.

Be it enacted by the Senate and the House of Representatives of the United States in Congress assembled, . . .

That the word "association" wherever used in this Act means any corporation or combination, by contract or otherwise, of two or more persons, partnerships, or corporations.

SEC. 2. That nothing contained in the Act entitled "An Act to protect trade and commerce against unlawful restraints and monopolies," approved July second, eighteen hundred and ninety, shall be construed as declaring to be illegal an association entered into for the sole purpose of engaging in export trade, and actually engaged solely in such export trade, or an agreement made or act done in the course of export trade by such association, provided such association, agreement, or act is not in restraint of trade within the United States, and is not in restraint of the export trade of any domestic competitor of such association: *And provided further*, That such association does not, either in the United States or elsewhere, enter into any agreement, understanding, or conspiracy, or do any act which artificially or intentionally enhances or depresses prices within the United States of commodities of the class exported by such association, or which substantially lessens competition within the United States or otherwise restrains trade therein. . . .

SEC. 5. Whenever the Federal Trade Commission shall have reason to believe that an association or any agreement made or act done by such association is in restraint of trade within the United States or in restraint of the export trade of any domestic competitor of such association, or that an association either in the United States or elsewhere has entered into any agreement, understanding, or conspiracy, or done any act which artificially or intentionally enhances or depresses prices within the United States of commodities of the class

¹ Webb-Pomerene Act of April 10, 1918, 65th Congress, 2nd Session, *Statutes at Large of the U. S.*, Volume 40, Part I, Chapter 50, page 516.

exported by such association, or which substantially lessens competition within the United States or otherwise restrains trade therein, it shall summon such association, its officers, and agents to appear before it, and thereafter conduct an investigation into the alleged violations of law. Upon investigation, if it shall conclude that the law has been violated, it may make to such association recommendations for the readjustment of its business, in order that it may thereafter maintain its organization and management and conduct its business in accordance with law. If such association fails to comply with the recommendations of the Federal Trade Commission, said commission shall refer its findings and recommendations to the Attorney General of the United States for such action thereon as he may deem proper.

For the purpose of enforcing these provisions the Federal Trade Commission shall have all the powers, so far as applicable, given it in "An Act to create a Federal Trade Commission, to define its powers and duties, and for other purposes."

Approved April 10, 1918.

THE MILLER-TYDINGS ACT OF 1937

U. S. CONGRESS¹

This is the text of the Miller-Tydings amendment to the anti-trust laws, which legalizes resale price maintenance under certain specified conditions.

Section 1 of the act entitled "An act to protect trade and commerce against unlawful restraints and monopolies," approved July 2, 1890, is amended to read as follows:

"SECTION 1. Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is hereby declared to be illegal: *Provided*, That nothing herein contained shall

¹ Miller-Tydings Act of August 17, 1937, Title VIII of an Act to Provide Additional Revenue for the District of Columbia and Other Purposes, 75th Congress, 1st Session, *Statutes at Large of the U. S.*, Volume 50, Part I, Chapter 690, page 693.

render illegal, contracts or agreements prescribing minimum prices for the resale of a commodity which bears, or the label or container of which bears, the trade mark, brand, or name of the producer or distributor of such commodity and which is in free and open competition with commodities of the same general class produced or distributed by others, when contracts or agreements of that description are lawful as applied to intrastate transactions, under any statute, law, or public policy now or hereafter in effect in any State, Territory, or the District of Columbia in which such resale is to be made, or to which the commodity is to be transported for such resale, and the making of such contracts or agreements shall not be an unfair method of competition under section 5, as amended and supplemented, of the act entitled 'An act to create a Federal Trade Commission, to define its powers and duties, and for other purposes,' approved September 26, 1914: *Provided further*, That the preceding proviso shall not make lawful any contract or agreement, providing for the establishment or maintenance of minimum resale prices on any commodity herein involved, between manufacturers, or between producers, or between wholesalers, or between brokers, or between factors, or between retailers, or between persons, firms, or corporations in competition with each other. Every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding \$5,000, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court."

Approved, August 17, 1937.

THE MYTH OF THE SHERMAN ACT¹WALTON H. HAMILTON²

Professor Hamilton here explains the origin and nature of the "myth" surrounding the Sherman Act. He regards the Act a failure, because it looked to the past when the need was to shape the future.

A half century ago the Sherman Act became the law of the land. In our hurried world 50 years is a long time, quite long enough to turn legislative intent into current reality. Yet today, in talk and in fact, the trust problem is as acute, as fresh, as unsolved as when first the National Government made the matter its concern.

The popular will, as expressed by Congress, is clear enough. A competition which keeps a free field and grants no favors is to maintain the life of trade. As a policeman with a big stick, the Government is to keep occupations open to all who desire to take their chances, to secure to individuals the "common right" to the unmolested pursuit of their callings, to remove obstructions from the avenues of opportunity, to free from restraints big and little the channels of trade. Hedged by such liberties, business enterprise is to work out its own salvation.

Amid the resounding clash of economic forces, the market is to hold the dominant place. Its function is to fix price, adjust production to the demand for goods, regiment the lines of enterprise to ever-novel situations, measure out success and solvency. As seller strives with seller and buyer vies with buyer, competition is the be-all and end-all of industrial order. It is an arena for restless energy; within a scheme of checks and balances clashing interests move toward an equilibrium. Yet that equilibrium can never be attained—for the volcanic urge of a dynamic society forbids.

But somehow public policy and current reality are at serious odds and industries have not been subdued into such well-behaved

¹ This selection is reprinted from Monograph No. 16, Temporary National Economic Committee, Washington: U. S. Government Printing Office, 1941, pages 3-11.

² Walton Hale Hamilton (1881-) is now Southmayd Professor of Law, Yale University.

affairs. Hardly a trade exhibits the neat purposive lines of the legislative pattern. Every industry has its vocabulary, its trade practices, its common understandings, without which it could not carry on. On all sides the rivalry of isolated firms has been tainted by custom, by compromise, by collusion. Industries in their several designs present their zones of competition and their points of constraint; and across the industrial landscape lies a network of constriction—open here, loose there, tight over yonder—which abridge the liberty of the trade or deny the freedom of the market. It is an odd fact that restraint of trade and competitive practice are inextricably mingled; together they form a shifting pattern of control for an industry. Outright “monopoly” is as nonexistent as “pure competition,” both concepts belong to picture books rather than to everyday activity. Everywhere departures blur the simple lines of black and white into a motley outline streaked with many colors.

Yet, despite this rift between legislative standard and industrial fact, the Sherman Act has become a great American tradition. For decades an antitrust plank has adorned the platforms of the major parties; phrases, hoary with age, remain vital from one campaign to the next. The general public apparently makes antitrust an article of political faith. The will to depart is greatest among executives in rather closely-knit corporate domains; yet their illustrations come almost wholly from trades in which cut-throat competition threatens destruction. Small businessmen extoll “free enterprise” but their everyday practices are hardly in accord with its profession. There is little doubt that the halo about the law serves the practical purpose of forestalling any substitute measure for the control of industry. Yet a myth, long venerated, develops strong compulsions of its own. In the minds of many businessmen the belief in antitrust belongs to one world and the actualities of business conduct to quite another.

The Sherman Act has been called “a charter of freedom” for American industry. Why has it not been a success? Is the crux of the trouble the congressional failure to implement the law with adequate funds? Or is its weakness due to an insecure foundation? Is a statute enacted in the far-away nineties adequate to the problem of restraint five decades later? Is the machinery for its administration subject to the wear and tear of time, and has it become obsolescent? Can the basic issues of industrial government be transmuted into causes of action? Can the process of litigation be made to put an erring trade back on the right track? Have courts the distinctive

competence to bring order and justice into the affairs of industry? Can a series of suits be depended upon to hold the national economy true to the competitive ideal? Are the sanctions of the statute of a character to induce compliance? In a word, can antitrust be made the answer?

A "next step" in making industry serve the general welfare is imminent. Issues neglected can hardly be postponed longer. A question which persists is why the national economy, in spite of an up-to-date technology and a wealth of material and human resources, does not operate efficiently. Problems of surplus capacity, unemployment, under-consumption, inadequate standards of life, all drive back to organization of industry. In such a critical review, the Sherman Act is in for close scrutiny.

The edge of inquiry is being sharpened by the drive for national defense. As a method of regulation, trust-busting belongs to an era of *laissez faire*. In times of stress its freedom is likely to be curtailed. Antitrust was forgotten in the last war and it was effectively abated in the economic crisis of 1933. Its role in the future is most uncertain. Whether increased "power" is to be put behind the Sherman Act, its provisions are to be modernized, its resort to litigation is to be streamlined, awaits decision. It is even possible that antitrust will give way to some more up-and-coming mode of regulation.

The tangle of affairs to which the old, the amended, or the new measure will be applied come straight out of the past. Only from the knowledge of how it has worked can the law be remade and set on its way. The line gives position to the point; the sweep through time endows with meaning a problem of here and now.

THE CHARTER OF FREEDOM

The Sherman Act is a weapon of policy from another age. As the eighties became the nineties, the Nation was becoming uncomfortably conscious of an industrial revolution. Although dinky little railways were a commonplace, the trunk line was still a novelty. The land was dotted with factories using simple mechanical processes; yet chemistry and biology had not been subdued into technologies and electricity had just ceased to be a toy. The telephone was still a novelty; the electric light had just passed its eleventh birthday; the wonders that lie within the vacuum tube were still to be explored. The automobile was a rather impious hope; the airplane, an adventurous flight in wishful thinking. The motion pic-

ture and the radio broadcast were as yet hardly tangible enough to be subjects of fancy. Agriculture, once the foundation of national wealth, was being driven back country. Petty trade had been forced to make a place beside itself for a big business which seemed to masses of the people to be strange, gigantic, powerful.

The unruly times offered opportunity to the swashbuckling captains of industry, whose ways were direct, ruthless, and not yet covered over by the surface amenities of a later age. In sugar, nails, tobacco, copper, jute, cordage, borax, slate pencils, oilcloth, gutta percha, barbed fence wire, castor oil they bluntly staked out their feudal domains. The little man caught in a squeeze play—the independent crowded to the wall by “the Octopus”—the farmer selling his wheat, corn, or tobacco under the tyranny of a market he did not understand—the craftsman stripped of his trade by the machine—the consumer forced to take the ware at an artificial price or go without—here were dramatic episodes. Industry was in the clutch of radical forces—and of iniquity. It was a period in which the ordinary man was confused, disturbed, resentful. . . .

A restraint of trade was looked upon as a malicious act. All that was needed was an eradication of the evil. It was utterly foreign to the age to regard industry as an intricate affair, to control it through an administrative agency, to entrust oversight to a corps of specialists. Above all, it was hard for the fact of the rising national economy to register. The idea of petty trade lingered on long after industry had ceased to be local. The notion that business could govern itself or that its regulation belonged to the States was a matter of common sense just beginning to be challenged. . . .

BACK TO THE COMMON LAW

As a creature of such currents of thought the statute took shape. The original Sherman bill was a very tentative proposal. It professed to outlaw all arrangements which prevented “full and free competition,” to open the Federal courts to suits by parties damnified by such agreements, to provide for the forfeiture of the charter of the offending corporation. Its terms were uncertain, it invited constitutional attack, its author was timid in its defense. Twice it was rewritten. . . .

After the briefest of discussions the Senate adopted the . . . bill. Its sponsors were apologetic for the very little distance the statute went; but the zeal for argument had long since been spent. . . .

There was no enthusiasm; but here was something at least for the people back home—and the congressional campaign was warming up. Besides there were matters of real consequence, such as the McKinley Tariff Act, which wanted legislative attention. So, with only a single vote in dissent—though in both Houses Members answered “present” or were conveniently absent—on the 2d of July, 1890, the bill became the law of the land. It is to this day strangely enough called the Sherman Act—for no better reason, according to its author, than that Senator Sherman had nothing to do with it whatever. . . .

THE INTENT—IF ANY—OF CONGRESS

The Fifty-first Congress sensed the rush of an oncoming industrialism. Its task, facing the future, was to create a barrier against shock, a road to order, a guaranty of justice. In debate it laid bare evils within the emerging national economy, but could bring itself to do something about it only in a babble of voices. Except for words, it made no thrust at present dangers; it came to no grip with the trends of the times; it made no attempt to chart a course for American industry. When the voters would no longer tolerate delay, it acted. When the need was to shape the future, it looked to the past. On the eve of the greatest of industrial revolutions, the National Government was fitted out with a weapon forged to meet the problems of petty trade. Out of an inability of Congress to face the economic problems of its day the “charter of freedom” for American industry was born.

WHY A T.N.E.C.? ¹FRANKLIN D. ROOSEVELT ²

The late President Roosevelt here gives two main reasons for the creation of a T. N. E. C. to investigate the growing concentration of power in American industry: (1) the threat of concentrated economic power to free political institutions, and (2) the interference which monopoly tends to cause with the maintenance of full employment.

To the Congress of the United States:

Unhappy events abroad have retaught us two simple truths about the liberty of a democratic people.

The first truth is that the liberty of a democracy is not safe if the people tolerate the growth of private power to a point where it becomes stronger than their democratic state itself. That, in its essence, is fascism—ownership of government by an individual, by a group, or by any other controlling private power.

The second truth is that the liberty of a democracy is not safe if its business system does not provide employment and produce and distribute goods in such a way as to sustain an acceptable standard of living.

Both lessons hit home.

Among us today a concentration of private power without equal in history is growing.

This concentration is seriously impairing the economic effectiveness of private enterprise as a way of providing employment for labor and capital and as a way of assuring a more equitable distribution of income and earnings among the people of the Nation as a whole. . . .

THE CHOICE BEFORE US

Examination of methods of conducting and controlling private enterprise which keep it from furnishing jobs or income or oppor-

¹ This selection is reprinted from the Hearings before the Temporary National Economic Committee, Part I, Washington: U. S. Government Printing Office, 1941, pages 185, 188-189, 191.

² Franklin Delano Roosevelt (1882-1945) was 31st president of the United States.

tunity for one-third of the population is long overdue on the part of those who sincerely want to preserve the system of private enterprise for profit.

No people, least of all a democratic people, will be content to go without work or to accept some standard of living which obviously and woefully falls short of their capacity to produce. No people, least of all a people with our traditions of personal liberty, will endure the slow erosion of opportunity for the common man, the oppressive sense of helplessness under the domination of a few, which are overshadowing our whole economic life.

A discerning magazine of business has editorially pointed out that big-business collectivism in industry compels an ultimate collectivism in government.

The power of a few to manage the economic life of the Nation must be diffused among the many or be transferred to the public and its democratically responsible government. If prices are to be managed and administered, if the Nation's business is to be allotted by plan and not by competition, that power should not be vested in any private group or cartel, however benevolent its professions profess to be.

Those people, in and out of the halls of government, who encourage the growing restriction of competition either by active efforts or by passive resistance to sincere attempts to change the trend, are shouldering a terrific responsibility. Consciously or unconsciously they are working for centralized business and financial control. Consciously or unconsciously they are therefore either working for control of the Government itself by business and finance or the other alternative—a growing concentration of public power in the Government to cope with such concentration of private power.

The enforcement of free competition is the least regulation business can expect.

A PROGRAM

The traditional approach to the problems I have discussed has been through the antitrust laws. That approach we do not propose to abandon. On the contrary, although we must recognize the inadequacies of the existing laws, we seek to enforce them so that the public shall not be deprived of such protection as they afford. To enforce them properly requires thorough investigation not only to

discover such violations as may exist but to avoid hit-and-miss prosecutions harmful to business and government alike. To provide for the proper and fair enforcement of the existing antitrust laws I shall submit, through the Budget, recommendations for a deficiency appropriation of \$200,000 for the Department of Justice.

But the existing antitrust laws are inadequate—most importantly because of new financial economic conditions with which they are powerless to cope.

The Sherman Act was passed nearly 40 years ago. The Clayton and Federal Trade Commission Acts were passed over 20 years ago. We have had considerable experience under those acts. In the meantime we have had a chance to observe the practical operation of large-scale industry and to learn many things about the competitive system which we did not know in those days.

We have witnessed the merging out of effective competition in many fields of enterprise. We have learned that the so-called competitive system works differently in an industry where there are many independent units, from the way it works in an industry where a few large producers dominate the market.

We have also learned that a realistic system of business regulation has to reach more than consciously immoral acts. The community is interested in economic results. It must be protected from economic as well as moral wrongs. We must find practical controls over blind economic forces as well as over blindly selfish men.

Government can deal and should deal with blindly selfish men. But that is a comparatively small part—the easier part—of our problem. The larger, more important, and more difficult part of our problem is to deal with men who are not selfish and who are good citizens, but who cannot see the social and economic consequences of their actions in a modern economically interdependent community. They fail to grasp the significance of some of our most vital social and economic problems because they see them only in the light of their own personal experience and not in perspective with the experience of other men and other industries. They therefore fail to see these problems for the Nation as a whole.

To meet the situation I have described, there should be a thorough study of the concentration of economic power in American industry and the effect of that concentration upon the decline of competition. There should be an examination of the existing price system and the price policies of industry to determine their effect

upon the general level of trade, upon employment, upon long-term profits, and upon consumption. The study should not be confined to the traditional antitrust field. The effects of tax, patent, and other Government policies cannot be ignored. . . .

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No man of good faith will misinterpret these proposals. They derive from the oldest American traditions. Concentration of economic power in the few and the resulting unemployment of labor and capital are inescapable problems for a modern "private enterprise" democracy. I do not believe that we are so lacking in stability that we will lose faith in our own way of living just because we seek to find out how to make that way of living work more effectively.

This program should appeal to the honest common sense of every independent businessman interested primarily in running his own business at a profit rather than in controlling the business of other men.

It is not intended as the beginning of any ill-considered "trust-busting" activity which lacks proper consideration for economic results.

It is a program to preserve private enterprise for profit by keeping it free enough to be able to utilize all our resources of capital and labor at a profit.

It is a program whose basic purpose is to stop the progress of collectivism in business and turn business back to the democratic competitive order.

It is a program whose basic thesis is not that the system of free private enterprise for profit has failed in this generation, but that it has not yet been tried.

Once it is realized that business monopoly in America paralyzes the system of free enterprise on which it is grafted, and is as fatal to those who manipulate it as to the people who suffer beneath its impositions, action by the Government to eliminate these artificial restraints will be welcomed by industry throughout the Nation.

For idle factories and idle workers profit no man.

SECTION VI

Levels of Productive Activity: Savings, Investment, and Employment

THE GREAT DEPRESSION OF THE 1930'S PRODUCED A profound shock on the world of economic ideas. Up to that time, the principles, the laws and the theories of most economists were built upon a postulated condition of full employment. Assuming full employment to exist, these economists proceeded to show how the production of goods and services might be maximized through an efficient utilization of resources. This did not mean that unemployment was unknown to the world prior to 1930, but rather that *general* unemployment was the exception and not the rule; that the normal level of productive activity was traditionally that of full employment of labor—as well as of capital and land.

Against this background of normalcy, the great depression hit with the impact of a traumatic experience and shocked not only people in general, but economists in particular. Under the influence of the depression, students of economics began to inquire whether their assumption of full employment was actually realistic; whether full employment was the normal economic environment in which business activity was carried on. They began to shift the emphasis from problems of maximizing production to problems of regularizing production. While most students reoriented their thinking toward the study of full employment, however, the controversy over the "right" social policy to achieve common ends remained unabated. The arena of the conflict shifted, but its intensity remained as violent as ever.

Through the window of income analysis economists began to look abroad on new horizons, studying the nature of full employment and the manner in which it might best be achieved and preserved. Most of them agreed that, if consumer income and consumer spending were relatively high, the volume of productive activity tended to be large; that if the investment of savings in the construction of capital goods was great, the level of production and income tended to be high. The significance of income, as represent-

ing effective demand or the *ability* to buy, became manifest in the formula that national income was equal to consumption plus investment. If money was put to work either by consumer spending or by investment, the volume of production and the size of the national income would be such as to assure full employment. But if money was not spent for consumer goods, and if the saved money was hoarded instead of being invested, then the level of production and employment would be lowered and some men and machines would go unemployed. Under such conditions, it became exceedingly important to watch capital goods and inventories. If the final products sold in the markets, then it would be well to continue investing in producer goods to make more consumer goods. If the final products did not move, it would be wise for businessmen making heavy goods, machinery, etc., to decrease production and employ less land, labor and capital. This would mean lower incomes being paid out to the owners of the factors of production, which in turn meant a decrease in demand and a yet smaller production of consumer and producer goods. In such manner, the students of the "new" economics observed that one person's employment depended on what others did with their incomes. Idle money, it was agreed, meant idle factories and unemployment. If, then, something was to be done toward maintaining full employment, something had to be done about consumption and investment.

But what should be done? Should the government redistribute income by soaking the rich on the grounds that they couldn't possibly spend all the income they made and thus contribute substantially to the demand for consumer goods? Should the government stimulate consumption by increasing the income of the poor who wanted to buy goods, but didn't possess the purchasing power to translate their needs and desires into effective market demand? Should the government attempt to create full employment through a policy of public investment to absorb the idle savings left unused by private investment? Some economists, especially the followers of Lord Keynes, said yes—*emphatically* so.

Others disagreed. They argued that governmental interference with business only discouraged private entrepreneurs from making the investment necessary to revive production and employment; that government spending of borrowed funds built up a gigantic federal debt and led to unsound fiscal conditions which further served to dampen entrepreneurial optimism. They contended that the critical

attitude toward savings was all wrong, since savings were vital for capital formation and capital was necessary for increasing the productive capacity of the nation. Taxes which soaked the rich would only deprive people of the incentive essential for assuming the risks of production and investment and would thus hinder, rather than aid, the attainment of full employment conditions.

This controversy over public policy toward savings and investment was further complicated by the appearance of the so-called mature economy thesis. The proponents of this idea held that our economy had reached the stage of long-run stagnation; that henceforth there would be a chronic underinvestment of funds (in relation to savings) and a permanent army of unemployed. The reasons given for this gloomy outlook were the declining rate of population growth, the disappearance of the frontier, and the dearth of great new industries. The solution proposed was to have the government take up the slack between the level of private investment and the fund of accumulated savings. If deficient investment was the cause of the ailment, perhaps deficit spending was the cure.

Almost immediately, this theory was pounced upon as untrue and dangerous. It was argued that there was little historical or statistical evidence to support the conclusions reached; that the social policies growing out of this gloomy philosophy would only destroy the free enterprise system which had shown such great resiliency in times of former trial. It was contended that, if we ever hoped to attain the goal of stability and full employment, we would have to rid ourselves of this dangerous bogey and proceed with optimistic resolution toward the conquest of the more immediate problems at hand.

So significant were these controversies that they were fought not only by academicians, but also by business men and politicians. Great pressure was exerted on legislative bodies, urging them to assume responsibility for the maintenance of high levels of productive activity. An economic bill of rights was recommended to Congress, which would grant every citizen the right to work by imposing on the federal government the obligation to guarantee provision of 60 million jobs—in case private industry failed to do so. Peculiarly enough, it was to be an era of great spending and high employment during which the first step in that direction was taken. So ingrained was the fear of another major depression, that Congress—in the midst of the post-war boom—passed the Employment

Act of 1946. While Congress was unwilling to underwrite the economy to the extent of guaranteeing full employment, in general, or jobs for everyone, in particular, it did move in that general direction. Reluctant to go all the way, the Congress did establish a Council of Economic Advisers to the President in order to warn him, and the people of the United States, of any impending dangers. While the controversy over practical means and ethical ends continued to rage, machinery had finally been set in motion to come to grips with the difficult problem of spending, saving, and production, in order to defeat the challenge of underemployment and the demon of depression.

CHAPTER 13

The Case for The Oversavings-Underinvestment Theory

THE SIGNIFICANCE OF A DEFICIENT DEMAND ¹

JOAN ROBINSON ²

Mrs. Robinson here explains how an excess of savings over investment tends to cause a deficiency in the demand for goods and hence the unemployment of men and machines.

Under a system of private enterprise it is, in a simple and obvious sense, the decisions of employers—in the main, industrial entrepreneurs—which determine the amount of employment offered to the working population, but the entrepreneurs themselves are subject to general influences which cause them to decide one way or another, and the decisions of each influence the decisions of the rest. There is no central control, no plan of action, and whatever actually occurs in economic life is the result of innumerable independent individual decisions. The course which it is best for each individual to pursue in his own interests is rarely the same as the course best calculated to promote the interests of society as a whole, and if our economic system appears sometimes fantastic or even insane—as when food-stuffs are destroyed while men go hungry—we must remember that it is not surprising that the interaction of free individual decisions should lead so often to irrational, clumsy and bewildering results.

Under this system, goods and services are produced in order that they may be sold profitably. Thus the output of goods and services that will be produced depends upon the demand for them. "Demand" implies money expenditure, not desire or need. No matter how great a man's need may be for goods to feed and clothe and

¹ This selection is reprinted by kind permission of the publishers from Joan Robinson, *Introduction to the Theory of Employment*, London: Macmillan and Co., Ltd., 1937, pages 2-5.

² (Mrs.) Joan Robinson (1903-) is a well known British economist.

amuse him, he cannot make it worth anyone's while to produce them for him unless he has money to pay, and need does not constitute "demand" unless it is accompanied by expenditure. As we know only too well, in the economic system under which we live, it often happens that productive resources are unemployed—men out of work, machines idle, land falling out of cultivation—while at the same time there is bitter need for the goods which they are able to produce. Output falls below its possible maximum, not when needs are satiated, but when demand is deficient.

How can a deficiency of demand come about? The demand for goods on the part of individual consumers is governed mainly by their income. The larger the income an individual has the greater will be his expenditure on current consumption. But income is the product of expenditure as well as the source of expenditure. Men earn their incomes by supplying each other's demands. One man's expenditure provides other men's incomes, and one man's income is derived from other men's expenditure. From this we might be inclined to argue that if resources are idle at any moment it must be the result merely of accident or mismanagement, for all that is necessary is to increase activity, and incomes will increase so as to provide a demand for the extra goods produced.

But the whole of everyone's income is not spent on current consumption. Provided the standard of life of an individual is above a certain bare minimum, he may want to save part of his income in order to build up a store of wealth. Wealth is accumulated in order to provide security against future emergencies, to satisfy the lust of possession, or to acquire further income by lending it at interest. For motives of this kind, individuals put aside part of their income, and acquire wealth, by means of consuming less than the full amount of goods which their income could purchase. This would cause no trouble if the decision to save led directly to a demand for real capital—houses, machines, ships and so forth. For in that case the part of income saved would give employment in making capital goods just as the part spent on consumption gives employment in making consumption goods. The desire to save could not then be a cause of unemployment.

But the demand for capital goods comes, not from saving, but from business concerns who use them in production, and no entrepreneur is inclined to acquire capital goods unless he can see a profit by doing so. The mere fact that individuals want to save part

of their incomes to add to their private wealth does nothing to encourage entrepreneurs to expect a greater profit from capital. The profitability of capital goods depends upon the demand for the consumption goods which they produce. Thus if individuals decide to save, that is, not to spend on immediate consumption, they reduce rather than increase the motive of the entrepreneurs for acquiring new capital goods, and the decision to save reduces the demand for consumption goods without increasing the demand for capital goods.

It is for this reason that unemployment can occur. There is unemployment when the decisions of entrepreneurs as to how much new capital it is worth their while to acquire fall short of the desire of individuals to save. Saving depletes the demand for consumption goods, for saving means not spending upon current consumption, and the entrepreneurs fail to make up for it by creating a sufficient demand for capital goods to fill the gap. Then demand is deficient and men and machines stand idle, not because humanity has no *need* for their services, but because *demand* is not great enough for anyone to be able to make a profit for himself by setting them to work.

THE EMPLOYMENT ACT OF 1946

U. S. CONGRESS ¹

This is the text of the Employment Act of 1946, which creates a Council of Economic Advisers to aid the President in the achievement and maintenance of full employment in the economy.

SHORT TITLE

SECTION 1. This Act may be cited as the "Employment Act of 1946."

DECLARATION OF POLICY

SEC. 2. The Congress hereby declares that it is the continuing policy and responsibility of the Federal Government to use all practicable means consistent with its needs and obligations and other essential considerations of national policy, with the assistance and

¹ Employment Act of 1946, as of February 20, 1946, 79th Congress, 2nd Session, *Statutes at Large of the U. S.*, Volume 60, Chapter 33, pages 23-26.

cooperation of industry, agriculture, labor, and State and local governments, to coordinate and utilize all its plans, functions, and resources for the purpose of creating and maintaining, in a manner calculated to foster and promote free competitive enterprise and the general welfare, conditions under which there will be afforded useful employment opportunities, including self-employment, for those able, willing, and seeking to work, and to promote maximum employment, production, and purchasing power.

SEC. 3 (a) The President shall transmit to the Congress *at* the beginning of each regular session . . . an economic report . . . setting forth (1) the levels of employment, production, and purchasing power obtaining in the United States and such levels needed to carry out the policy declared in section 2; (2) current and foreseeable trends in the levels of employment, production, and purchasing power; (3) a review of the economic program of the Federal Government and a review of economic conditions affecting employment in the United States or any considerable portion thereof during the preceding year and of their effect upon employment, production, and purchasing power; and (4) a program for carrying out the policy declared in section 2, together with such recommendations for legislation as he may deem necessary or desirable. . . .

COUNCIL OF ECONOMIC ADVISERS TO THE PRESIDENT

SEC. 4. (a) There is hereby created in the Executive Office of the President a Council of Economic Advisers (hereinafter called the "Council"). The Council shall be composed of three members who shall be appointed by the President, by and with the advice and consent of the Senate, and each of whom shall be a person who, as a result of his training, experience, and attainments, is exceptionally qualified to analyze and interpret economic developments, to appraise programs and activities of the Government in the light of the policy declared in section 2, and to formulate and recommend national economic policy to promote employment, production, and purchasing power under free competitive enterprise. . . .

(c) It shall be the duty and function of the Council—

- (1) to assist and advise the President in the preparation of the Economic Report:
- (2) to gather timely and authoritative information concerning economic developments and economic trends, both current and prospective, to analyze and interpret such information in the light of the policy

- declared in section 2 for the purpose of determining whether such developments and trends are interfering, or are likely to interfere, with the achievement of such policy, and to compile and submit to the President studies relating to such developments and trends;
- (3) to appraise the various programs and activities of the Federal Government in the light of the policy declared in section 2 for the purpose of determining the extent to which such programs and activities are contributing, and the extent to which they are not contributing, to the achievement of such policy, and to make recommendations to the President with respect thereto;
 - (4) to develop and recommend to the President national economic policies to foster and promote free competitive enterprise, to avoid economic fluctuations or to diminish the effects thereof, and to maintain employment, production, and purchasing power;
 - (5) to make and furnish such studies, reports thereon, and recommendations with respect to matters of Federal economic policy and legislation as the President may request.

(d) The Council shall make an annual report to the President in December of each year. . . .

JOINT COMMITTEE ON THE ECONOMIC REPORT

SEC. 5 (a) There is hereby established a Joint Committee on the Economic Report, to be composed of seven Members of the Senate, to be appointed by the President of the Senate, and seven Members of the House of Representatives, to be appointed by the Speaker of the House of Representatives. The party representation on the joint committee shall as nearly as may be feasible reflect the relative membership of the majority and minority parties in the Senate and House of Representatives.

(b) It shall be the function of the joint committee—

- (1) to make a continuing study of matters relating to the Economic Report;
- (2) to study means of coordinating programs in order to further the policy of this Act; and
- (3) as a guide to the several committees of the Congress dealing with legislation relating to the Economic Report . . . to file a report with the Senate and the House of Representatives containing its findings and recommendations with respect to each of the main recommendations made by the President in the Economic Report, and from time to time to make such other reports and recommendations to the Senate and House of Representatives as it deems advisable.

THE PHILOSOPHY OF THE EMPLOYMENT ACT¹COUNCIL OF ECONOMIC ADVISERS²

Here is presented an analysis of the political and economic philosophy behind the Employment Act of 1946 and the ideal of full employment.

THE POLITICAL PHILOSOPHY OF THE EMPLOYMENT ACT

It is trite to observe that the responsibilities of the Chief Executive of the United States and of the Congress have grown enormously in scope and difficulty during recent decades. This is in part due to the sheer size to which our population and wealth have grown, but in part also to the increasing complexity in technical processes and in business organization which has come with the rapid march of industrialization. Beyond these changes, still a third factor must be recognized as playing a part in increasing the difficulty and burdensomeness of the duties of both President and Congress. This is the fact that the mass of citizens has come to expect and indeed, as voters, to demand of their Federal Government a more active role of leadership in dealing with matters which affect the Nation's economic life.

SOURCES OF THIS LEGISLATION

In the First World War, in the severe depression of the thirties, and again in the Second World War, a general sense of national emergency led to acceptance of a more active role of executive leadership by the President and the more prompt development and explicit implementation of a national program by the Congress in activating, directing, or safeguarding the economic life of the country. Drawn under pressure of time and in the face of danger, those national programs of both the executive and the legislative branch often were, of necessity, hastily improvised and sometimes set aside

¹ This selection is reprinted from the Council of Economic Advisers, *First Annual Report to the President, December 18, 1946*, Washington, D. C.: U. S. Government Printing Office, 1946, pages 1-12.

² The Council is an independent agency created by the Employment Act of 1946 to "formulate and recommend national economic policy to promote employment, production, and purchasing power under free competitive enterprise."

or suspended for a time some deeply cherished values such as love of individual freedom and our belief in the efficiency of a flexible business set-up.

As the Second World War drew toward a close there was a deep concern in public thinking and in the Congress as to our ability to handle our affairs in peacetime with the vigor and effectiveness that we had shown in meeting wartime needs. There was apprehension lest we might drift into a postwar depression as great as that of the thirties—or even worse. Two clearly marked schools of thought arose. One held it to be imperative not merely to have prompt liquidation of wartime controls but also the abandonment of depression-born “action programs” of the Federal Government, so that “individual free enterprise” could, through automatic processes of the market, effect the transition to full-scale peacetime business and (even with recurrent depressions) the highest practicable level of prosperity thereafter. The other school held that the economic activities of individuals and groups need, under modern industrial conditions, more rather than less supplementation and systematizing (though perhaps less direct regulation) by central government.

Some of this latter group were concerned merely with “spot” remedies for particular situations which they regarded as peculiarly important or dangerous. Others centered their attention on some great over-all device that they believed would assure or promote national economic stability or guard against a business decline. Followers of this latter school of thought became active as early as 1944 in drafting legislation under which the Federal Government should attempt to put their theories of economic stabilization into practice. Their proposals, however, encountered such sharp disagreement from the opposing school of thought that the early form of “full employment” legislation became deadlocked in Congress. Proponents of the bill followed, in this situation, the good American tradition of intellectual give-and-take. They gave opponents of the measure credit for being no less desirous than they themselves were of finding some practicable means of avoiding postwar depression or any unnecessary fluctuations of business. Hence they said in effect: “If you find our proposals defective, what alternatives have you to suggest?” Thus challenged, the opponents of the proposed bill set to work refining definitions, moderating objectives, reducing commitments as to any specific form of attack, broadening the range of

weapons to be used in the defense against depression or the attack on unemployment.

The measure which finally emerged from this process of legislative coalition was a well-balanced and carefully drawn piece of legislation. Although frequently referred to as a "much watered-down version" of the original proposal, it is in fact a broad enabling act of great flexibility as well as vigor. It is far from being a meaningless verbal compromise. The present act does not make any particular method mandatory. Nor does it legislate any specific remedy into use. Instead, the law states quite fully and clearly the general purpose and intention of the Congress and lays down the principle that the executive and the legislature shall seek diligently for any method which, in the peculiar circumstances of any given situation, appears to them to be sound and to promise helpful results. It is hard to see how a measure can be regarded as "watered down" which so clearly states the

responsibility of the Federal Government to use all practicable means consistent with its needs and obligations and other essential considerations of national policy . . . to coordinate and utilize all its plans, functions, and resources—

for the stated purposes of the act—maximum production, employment, and purchasing power. . . .

In signing the act on February 20, President Truman commented:

In enacting this legislation, the Congress and the President are responding to an overwhelming demand of the people. The legislation gives expression to a deep-seated desire for a conscious and positive attack upon the ever-recurring problems of mass unemployment and ruinous depression. . . . I am happy that the Senate adopted this legislation unanimously, the House of Representatives by a large majority. . . .

The Employment Act of 1946 is not the end of the road, but rather the beginning. It is a commitment by the Government to the people—a commitment to take any and all of the measures necessary for a healthy economy, one that provides opportunities for those able, willing, and seeking to work. We shall all try to honor that commitment.

BROAD POLICY OF THE ACT

This, then, gives us our first point with reference to the political philosophy of the act, namely, that it is not specific in character, prescribing a single kind of medicine for a simple kind of economic

disease nor a panacea "good for what ails you." Instead, the act expresses an intention to call upon all competent sources for diagnosis of situations as they arise and for the recommendation of such treatment as the nature of the case, carefully studied, is deemed to require. Before considering the agencies set up for the purpose of this diagnosis and prescription, one should note carefully the political philosophy expressed in the declaration of policy in section 2 of the act.

Here for the first time, the Congress has spelled out in unequivocal terms as a "continuing policy and responsibility of the Federal Government" something which hitherto had only fallen somewhat ambiguously within the general welfare clause of the Constitution. Now—

the Congress hereby declares that it is the continuing policy and responsibility of the Federal Government to use all practicable means consistent with its needs and obligations and other essential considerations of national policy . . . to coordinate and utilize all its plans, functions, and resources for the purpose of creating and maintaining . . . conditions under which there will be afforded useful employment opportunities, including self-employment, for those able, willing, and seeking to work, and to promote maximum employment, production, and purchasing power.

A mandate is thus laid on the President and the whole executive establishment and upon both Houses of Congress to pursue this goal of promoting maximum productive use of the Nation's resources, natural and human, thereby providing work opportunities as ample as are practicably possible for those who are anxious to apply their labor to the supplying of their wants.

It should be clearly noted that the act is called the Employment Act of 1946, avoiding the vague—and in some quarters alarming—use of the term "full employment." There is in it not the slightest hint that anyone is to be coerced or constrained to labor more than he wants to, with inferior equipment, or at anything other than the calling of his choice. The act stresses maximum production and the purchasing power that makes for high consumption; it does not stress mere number of jobs. The freedom of the worker is fully protected by the expression "willing and seeking to work." The danger of resort to leaf raking or digging holes and filling them up is guarded against by the expression "useful employment opportunities."

Finally, it is part of the broad policy of the act that, in carrying out a central responsibility for promoting high production and the general welfare, the Federal Government should coordinate its program and activities with those of State and local governments on the one hand and of private business agencies—industry, labor, and agriculture—on the other. It is to operate “in a manner calculated to foster and promote free competitive enterprise.” Likewise, it is the expressed policy of the act that the Council of Economic Advisers, which it sets up, shall be closely articulated with other agencies of the Federal Government operating in the economic area and that its work shall be cooperatively related to theirs, coordinating rather than superseding their functions.

MACHINERY OF THE ACT

We turn now from the political philosophy of the Employment Act, as embodied in its statement of purpose and of general method or range of methods, to note the governmental machinery through which this purpose is to be attained. The measure as enacted is fully within the existing frame of government. It does not set up any authoritarian board or official dictator of labor, of plant, or of production. The traditional division of function between the executive and legislative branches of the Government is fully preserved and, as already mentioned, the complementary relation between Federal and State Governments. In the machinery of the act, however, something has been added to our customary equipment for handling matters that concern the Nation's economic life. No longer is the study of the multifarious economic problems of the country and the formulating of Executive programs for dealing with national economic welfare to be merely scattered among the Federal departments and independent commissions or the still more numerous bureaus and divisions within these agencies. Instead, a means is provided for reviewing and synthesizing all these studies, conclusions, and recommendations into a single coordinated whole.

To this end, the President is called upon to send to Congress at the beginning of its session an Economic Report—

setting forth (1) the levels of employment, production, and purchasing power obtaining in the United States and such levels needed to carry out the policy declared in section 2; (2) current and foreseeable trends in the levels of employment, production, and purchasing power; (3) a review of the economic program of the Federal Government and a review of

economic conditions affecting employment in the United States or any considerable portion thereof during the preceding year and of their effect upon employment, production, and purchasing power; and (4) a program for carrying out the policy declared in section 2, together with such recommendations for legislation as he may deem necessary or desirable.

The new machinery set up for (a) preparing and (b) dealing with the Economic Report of the President consists of two parts: The Council of Economic Advisers to the President and the Joint Committee of Congress on the Economic Report.

The Employment Act establishes in the Executive Office of the President a Council of Economic Advisers, consisting of three economists, who, with the aid of the necessary staff, are to—

assist and advise the President in the preparation of the Economic Report . . . analyze and interpret economic developments, to appraise programs and activities of the Government in the light of the policy declared in section 2, and to formulate and recommend national economic policy to promote employment, production, and purchasing power under free competitive enterprise.

It was clearly the intent of the framers of the act that this shall be a small coordinating agency immediately adjacent to the President and effecting liaison between him and the vast area of technical services dealing with economic matters already available within the governmental establishment. It is not itself to be a fact-finding agency or one doing original statistical or economic research. . . .

The Council of Economic Advisers does not reallocate basic public responsibilities; it merely puts improved professional techniques and resources at the disposition of those who make national policy. Since the President must formulate his policies and shape his program within his own evaluation of the most varied and comprehensive political and social, as well as economic influences and considerations, it is not to be expected that his Report to Congress will merely reflect the conclusions and recommendations of his Economic Council. He will simply use as he deems wise such economic analyses, appraisals, conclusions, and recommendations as they prepare for him. . . .

THE ECONOMIC PHILOSOPHY OF SUSTAINED EMPLOYMENT

Nowhere in the Employment Act can one find the expression "business cycle" or even such familiar and harmless single words as

"prosperity" and "depression." And yet, no sooner had the Council been set up than the Man-on-the-Street began referring to us as having been assigned the task of "taming the business cycle" and the Inquiring Reporter pressed us for an opinion on the prospect for a postwar "boom and bust." This is only natural. For if, through constructive economic policies, the Nation were enabled to come closer to the attainment of "maximum employment, production, and purchasing power," business depressions would, to that extent, have been filled up and the turns of the cycle would have lost their former power to work hardship on the people. The passing of the Employment Act by Congress would have been no more than a senseless gesture if it did not express a considered belief that, by mobilizing our capacity of economic reasoning and the brains and experience of business management, labor leaders, and others, we could moderate in the future the devastating periods of business depression.

The three appointees who make up the initial membership of the Council . . . believe wholeheartedly in the basic purposes of the act. We believe its broad enabling powers provide a device through which practical action can be suited to the demands of changing circumstances. In our judgment, too, there has come to be a broader understanding of the basic relationships among production, purchasing power, and employment, and an actionable degree of willingness to meet the requirements of better sustained general prosperity in the future. . . .

THE SPARTAN DOCTRINE OF LAISSEZ FAIRE

Early thinking about the general upswings and downswings of business were of a highly individualistic and essentially fatalistic character. Those who follow this line of thought—and some still do—accept the cycle as a result produced by causes deeply rooted in physical nature or in fundamental human behavior and following an intricate pattern of short-, medium-, and long-time swings. They do not claim that this pattern is precise as to timing or invariable as to magnitude, like the movement of the stars. But they do think in terms of essentially mechanical relationships rather than human institutions that can be modified by intelligent action in a republic, and human behavior that can be changed by wise leadership.

Now if the businessman becomes convinced that cyclical swings will inevitably recur in response to sunspots, weather cycles, or some deep alternating pulls or tides of human behavior, what is the prac-

tical consequence? His prime concern becomes that of perfecting a technique for discovering what this extraneous pattern is and of measuring his position and that of business in general with reference to the progress of prosperity or depression. Insofar as he admits the likelihood of some variation in the pattern, he becomes concerned in identifying signs of its probable timing and magnitude. His major objective of business management centers on trying to outguess the course of the business cycle.

Whatever the mixture of trained measurement, experienced interpretation or evaluation, and sheer hunch, the practical outcome of this approach to the problem of economic fluctuations is, in the main, that of conformity or indeed exaggeration, not one of corrective action. If a majority of businessmen become convinced that a business recession "is due" in a specified quarter of the following year, ordinary prudence dictates that they shall put their business house in order for the impending storm. They will curtail their commitments and revise their operating plans in general accord with the prediction of time and severity of the depression in which they have placed their faith. If the various predictors and those who look to them for guidance, progressively comparing notes, come to substantial agreement in picking the third quarter as the time, 20 percent the magnitude, and 1 year the probably duration of the decline, and if the majority of businessmen accept this counsel as their guide to action, it can be expected that they will make about the appropriate curtailment in operations and will emerge from the storm cellar at about the appropriate moment so that the prediction will in fact prove true. It will, indeed, become the engine of its own verification. The journey into the area of restricted production, unemployment, and low purchasing power will have been completed according to schedule or even accelerated. The question, however, might be asked: "Was this trip necessary?"

Possible ill effects from staunch reliance on cycle theory and predictive techniques may be no less on the up side. If the business community in general becomes imbued with the idea that the economy as a whole is in a pronounced prosperity phase and that the upswing of this cycle is due to continue for three or five, or whatever number of years, they are likely to make plans of expansion without due care as to the particular factors of demand and available capacity in their own industry or their own locality. They are likely to follow looser practices as to management and cost control or be less cautious

as to inventory accumulation and credit commitments than they would be if looking at each situation strictly on its own merits and in the long-time perspective.

This extreme type of business-cycle theory does not conceive the role of the business organizer and administrator as in any way different from that of the squirrel storing up nuts for the winter. It does not ask whether this individual protective action may, unlike an animal's instinctive conformity to the fixed cycle of the seasons, become itself a contributory cause of the drying up of business. These narrow-visioned individuals do not consider what happens to the whole economic system when those who are less strongly entrenched to withstand a period of lean production (or less well equipped with advisers to foretell its coming and plan protective measures) are allowed to go to the wall. The real 100-percenters of this school of thought carry their fatalism one step further. They believe that depression is a wholesome purgative for business, eliminating those who are too weak or too short-sighted to be entitled to survive. Like the ancient Spartans, they believe in exposing the young and weak, no less than the strong, to the full force of nature, trusting that the strong will survive and only the weak will perish. They forget or deny that in a depression the strong and efficient also suffer. This type of economic behavior is complacently referred to as "riding the business cycle." Those who practice the art believe that they can—

find as many advantages in depressions as in booms. . . . Smart folks take advantage of the boom and are then ready for depression-time bargains. . . . It is to be hoped that depressions are never abolished, for they have many desirable features.

In our modern economy, however, little recessions often develop into big depressions, once a setback causes contraction of purchasing power and markets. Efficient as well as inefficient businesses incur losses. Efficient workers as well as inefficient workers become unemployed, and the Nation as a whole suffers. Besides the human misery and the waste of productive resources implied, we wonder how often our social fabric can stand "cures" of the type prescribed by the Spartan school of thought.

Changing our figure of speech, the business cycle is often likened to swings of a pendulum. It is said that, when it has gone to one side or the other of the equilibrium point a certain distance determined

by mechanical laws, natural forces will check its deviation and turn it back. This may be measurably true as to the excesses of price inflation or deflation. A midpoint of stable values may be the object and the basis of a natural control process. But as to production and employment, such is definitely not the case. The greatest amount of employment attained at the peak of the boom (except the most extreme war boom) is quite within the desires of the workers to apply their energies toward the satisfaction of their wants. All the idleness and underconsumption which develops as business moves toward the midpoint and on to the bottom of the depression is net loss, not a true corrective movement.

So, too, the volume of production at the top does not represent excess, with the midpoint as the goal of our "stabilization" devices. It is prices and property values and credit extensions that are excessive and unstable at the top of the swing and that are artificially shrunk and carrying the potential of a rise when the bottom has been reached. We do not in a boom have an excessive physical volume of production or excess of employment (even though there may be a faulty distribution of it) that needs to be corrected by idleness and a reduction in total production—with resultant want. The greatest danger of recent years has been that our economic institutions and our business practices would bring us to a more or less permanent equilibrium at a low or "stagnation" level. The Employment Act of 1946 reflects truly the proper goal of business stabilization in setting maximum production, maximum employment, and maximum purchasing power or scale of living as the kind of stability to which we are to apply our "plans, functions, and resources."

CHAPTER 14

The Case against The Oversavings-Underinvestment Theory

THE FETISH OF FULL EMPLOYMENT ¹

HENRY HAZLITT ²

Mr. Hazlitt here argues that maximum production is a more important goal for society to achieve than full employment. The latter, he holds, is merely a means to maximum production and not an end in itself.

The economic goal of any nation, as of any individual, is to get the greatest results with the least effort. The whole economic progress of mankind has consisted in getting more production with the same labor. It is for this reason that men began putting burdens on the backs of mules instead of on their own; that they went on to invent the wheel and the wagon, the railroad and the motor truck. It is for this reason that men used their ingenuity to develop a hundred thousand labor-saving inventions.

All this is so elementary that one would blush to state it if it were not being constantly forgotten by those who coin and circulate the new slogans. Translated into national terms, this first principle means that our real objective is to maximize production. In doing this, full employment—that is, the absence of involuntary idleness—becomes a necessary by-product. But production is the end, employment merely the means. We cannot continuously have the fullest production without full employment. But we can very easily have full employment without full production.

Primitive tribes are naked, and wretchedly fed and housed, but they do not suffer from unemployment. China and India are incomparably poorer than ourselves, but the main trouble from which they

¹ This selection is reprinted by kind permission of the publishers from Henry Hazlitt, *Economics in One Lesson*, New York: Harper and Brothers, 1946, pages 68–70.

² Henry Hazlitt (1894–) is at present financial editor of *Newsweek* magazine.

suffer is primitive production methods (which are both a cause and a consequence of a shortage of capital) and not unemployment. Nothing is easier to achieve than full employment, once it is divorced from the goal of full production and taken as an end in itself. Hitler provided full employment with a huge armament program. The war provided full employment for every nation involved. The slave labor in Germany had full employment. Prisons and chain gangs have full employment. Coercion can always provide full employment.

Yet our legislators do not present Full Production bills in Congress but Full Employment bills. Even committees of business men recommend "a President's Commission on Full Employment," not on Full Production, or even on Full Employment *and* Full Production. Everywhere the means is erected into the end, and the end itself is forgotten.

Wages and employment are discussed as if they had no relation to productivity and output. On the assumption that there is only a fixed amount of work to be done, the conclusion is drawn that a thirty-hour week will provide more jobs and will therefore be preferable to a forty-hour week. A hundred make-work practices of labor unions are confusedly tolerated. When a Petrillo threatens to put a radio station out of business unless it employs twice as many musicians as it needs, he is supported by part of the public because he is after all merely trying to create jobs. When we had our WPA, it was considered a mark of genius for the administrators to think of projects that employed the largest number of men in relation to the value of the work performed—in other words, in which labor was least efficient.

It would be far better, if that were the choice—which it isn't—to have maximum production with part of the population supported in idleness by undisguised relief than to provide "full employment" by so many forms of disguised make-work that production is disorganized. The progress of civilization has meant the reduction of employment, not its increase. It is because we have become increasingly wealthy as a nation that we have been able virtually to eliminate child labor, to remove the necessity of work for many of the aged and to make it unnecessary for millions of women to take jobs. A much smaller proportion of the American population needs to work than that, say, of China or of Russia. The real question is not whether there will be 50,000,000 or 60,000,000 jobs in America in 1950, but how much shall we produce, and what, in consequence, will be our

standard of living? The problem of distribution, on which all the stress is being put today, is after all more easily solved the more there is to distribute.

We can clarify our thinking if we put our chief emphasis where it belongs—on policies that will maximize production.

ARE SAVINGS EVIL? ¹

HENRY HAZLITT ²

Mr. Hazlitt here contends that since savings are invested they are but another form of spending and hence cannot be the cause of unemployment.

From time immemorial proverbial wisdom has taught the virtues of saving, and warned against the consequences of prodigality and waste. This proverbial wisdom has reflected the common ethical as well as the merely prudential judgments of mankind. But there have always been squanderers, and there have apparently always been theorists to rationalize their squandering.

The classical economists, refuting the fallacies of their own day, showed that the saving policy that was in the best interests of the individual was also in the best interests of the nation. They showed that the rational saver, in making provision for his own future, was not hurting, but helping, the whole community. But today the ancient virtue of thrift, as well as its defense by the classical economists, is once more under attack, for allegedly new reasons, while the opposite doctrine of spending is in fashion.

In order to make the fundamental issue as clear as possible, we cannot do better, I think, than to start with the classic example used by Bastiat. Let us imagine two brothers, then, one a spendthrift and the other a prudent man, each of whom has inherited a sum to yield him an income of \$50,000 a year. We shall disregard the

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² Henry Hazlitt (1894-) is at present financial editor of *Newsweek* magazine.

income tax, and the question whether both brothers really ought to work for a living, because such questions are irrelevant to our present purpose.

Alvin, then, the first brother, is a lavish spender. He spends not only by temperament, but on principle. He is a disciple (to go no further back) of Rodbertus, who declared in the middle of the nineteenth century that capitalists "must expend their income to the last penny in comforts and luxuries," for if they "determine to save . . . goods accumulate, and part of the workmen will have no work." Alvin is always seen at the night clubs; he tips handsomely; he maintains a pretentious establishment, with plenty of servants; he has a couple of chauffeurs, and doesn't stint himself in the number of cars he owns; he keeps a racing stable; he runs a yacht; he travels; he loads his wife down with diamond bracelets and fur coats; he gives expensive and useless presents to his friends.

To do all this he has to dig into his capital. But what of it? If saving is a sin, dissaving must be a virtue; and in any case he is simply making up for the harm being done by the saving of his pinch-penny brother Benjamin.

It need hardly be said that Alvin is a great favorite with the hat check girls, the waiters, the restaurateurs, the furriers, the jewelers, the luxury establishments of all kinds. They regard him as a public benefactor. Certainly it is obvious to everyone that he is giving employment and spreading his money around.

Compared with him brother Benjamin is much less popular. He is seldom seen at the jewelers, the furriers or the night clubs, and he does not call the head waiters by their first names. Whereas Alvin spends not only the full \$50,000 income each year but is digging into capital besides, Benjamin lives much more modestly and spends only about \$25,000. Obviously, think the people who see only what hits them in the eye, he is providing less than half as much employment as Alvin, and the other \$25,000 is as useless as if it did not exist.

But let us see what Benjamin actually does with this other \$25,000. On the average he gives \$5,000 of it to charitable causes, including help to friends in need. The families who are helped by these funds in turn spend them on groceries or clothing or living quarters. So the funds create as much employment as if Benjamin had spent them directly on himself. The difference is that more people are made happy as consumers, and that production is going more into essential goods and less into luxuries and superfluities.

This last point is one that often gives Benjamin concern. His conscience sometimes troubles him even about the \$25,000 he spends. The kind of vulgar display and reckless spending that Alvin indulges in, he thinks, not only helps to breed dissatisfaction and envy in those who find it hard to make a decent living, but actually increases their difficulties. At any given moment, as Benjamin sees it, the actual producing power of the nation is limited. The more of it that is diverted to producing frivolities and luxuries, the less there is left for producing the essentials of life for those who are in need of them. The less he withdraws from the existing stock of wealth for his own use, the more he leaves for others. Prudence in consumptive spending, he feels, mitigates the problems raised by the inequalities of wealth and income. He realizes that this consumptive restraint can be carried too far; but there ought to be some of it, he feels, in everyone whose income is substantially above the average.

Now let us see, apart from Benjamin's ideas, what happens to the \$20,000 that he neither spends nor gives away. He does not let it pile up in his pocketbook, his bureau drawers, or in his safe. He either deposits it in a bank or he invests it. If he puts it either into a commercial or a savings bank, the bank either lends it to going businesses on short term for working capital, or uses it to buy securities. In other words, Benjamin invests his money either directly or indirectly. But when money is invested it is used to buy capital goods—houses or office buildings or factories or ships or motor trucks or machines. Any one of these projects puts as much money into circulation and gives as much employment as the same amount of money spent directly on consumption.

"Saving," in short, in the modern world, is only another form of spending. The usual difference is that the money is turned over to someone else to spend on means to increase production. So far as giving employment is concerned, Benjamin's "saving" and spending combined give as much as Alvin's spending alone, and put as much money in circulation. The chief difference is that the employment provided by Alvin's spending can be seen by anyone with one eye; but it is necessary to look a little more carefully, and to think a moment, to recognize that every dollar of Benjamin's saving gives as much employment as every dollar that Alvin throws around.

A dozen years roll by. Alvin is broke. He is no longer seen in the night clubs and at the fashionable shops; and those whom he formerly patronized, when they speak of him, refer to him as something of

a fool. He writes begging letters to Benjamin. And Benjamin, who continues about the same ratio of spending to saving, provides more jobs than ever, because his income, through investment, has grown. His capital wealth is greater also. Moreover, because of his investments, the national wealth and income are greater; there are more factories and more production.

2

So many fallacies have grown up about saving in recent years that they cannot all be answered by our example of the two brothers. It is necessary to devote some further space to them. Many stem from confusions so elementary as to seem incredible, particularly when found in economic writers of wide repute. The word "saving," for example, is used sometimes to mean mere *hoarding* of money, and sometimes to mean *investment*, with no clear distinction, consistently maintained, between the two uses.

Mere hoarding of hand-to-hand money, if it takes place irrationally, causelessly, and on a large scale, is in most economic situations harmful. But this sort of hoarding is extremely rare. Something that looks like this, but should be carefully distinguished from it, often occurs *after* a downturn in business has got under way. Consumptive spending and investment are then *both* contracted. Consumers reduce their buying. They do this partly, indeed, because they fear they may lose their jobs, and they wish to conserve their resources: they have contracted their buying not because they wish to consume less, but because they wish to make sure that their power to consume will be extended over a longer period if they do lose their jobs.

But consumers reduce their buying for another reason. Prices of goods have probably fallen, and they fear a further fall. If they defer spending, they believe they will get more for their money. They do not wish to have their resources in goods that are falling in value, but in money which they expect (relatively) to rise in value.

The same expectation prevents them from investing. They have lost their confidence in the profitability of business; or at least they believe that if they wait a few months they can buy stocks or bonds cheaper. We may think of them either as refusing to hold goods that may fall in value on their hands, or as holding money itself for a rise.

It is a misnomer to call this temporary refusal to buy "saving." It does not spring from the same motives as normal saving. And it is

a still more serious error to say that this sort of "saving" is the *cause* of depressions. It is, on the contrary, the *consequence* of depressions.

It is true that this refusal to buy may intensify and prolong a depression once begun. But it does not itself originate the depression. At times when there is capricious government intervention in business, and when business does not know what the government is going to do next, uncertainty is created. Profits are not reinvested. Firms and individuals allow cash balances to accumulate in their banks. They keep larger reserves against contingencies. This hoarding of cash may seem like the cause of a subsequent slowdown in business activity. The real cause, however, is the uncertainty brought about by the government policies. The larger cash balances of firms and individuals are merely one link in the chain of consequences from that uncertainty. To blame "excessive saving" for the business decline would be like blaming a fall in the price of apples not on a bumper crop but on the people who refuse to pay more for apples.

But when once people have decided to deride a practice or an institution, any argument against it, no matter how illogical, is considered good enough. It is said that the various consumers' goods industries are built on the expectation of a certain demand, and that if people take to saving they will disappoint this expectation and start a depression. This assertion rests primarily on the error we have already examined—that of forgetting that what is saved on consumers' goods is spent on capital goods, and that "saving" does not necessarily mean even a dollar's contraction in *total* spending. The only element of truth in the contention is that *any* change that is *sudden* may be unsettling. It would be just as unsettling if consumers suddenly switched their demand from one consumers' good to another. It would be even more unsettling if former savers suddenly switched their demand from capital goods to consumers' goods.

Still another objection is made against saving. It is said to be just downright silly. The Nineteenth Century is derided for its supposed inculcation of the doctrine that mankind through saving should go on making itself a larger and larger cake without ever eating the cake. This picture of the process is itself naive and childish. It can best be disposed of, perhaps, by putting before ourselves a somewhat more realistic picture of what actually takes place.

Let us picture to ourselves, then, a nation that collectively saves every year about 20 per cent of all it produces in that year. This figure greatly overstates the amount of net saving that has occurred

historically in the United States, but it is a round figure that is easily handled, and it gives the benefit of every doubt to those who believe that we have been "oversaving."

Now as a result of this annual saving and investment, the total annual production of the country will increase each year. (To isolate the problem we are ignoring for the moment booms, slumps, or other fluctuations.) Let us say that this annual increase in production is $2\frac{1}{2}$ percentage points. (Percentage points are taken instead of a compounded percentage merely to simplify the arithmetic.) The picture that we get for an eleven-year period, say, would then run something like this in terms of index numbers:

Year	Total Production	Consumers' Goods Produced	Capital Goods Produced
First	100	80	20 *
Second	102.5	82	20.5
Third	105	84	21
Fourth	107.5	86	21.5
Fifth	110	88	22
Sixth	112.5	90	22.5
Seventh	115	92	23
Eighth	117.5	94	23.5
Ninth	120	96	24
Tenth	122.5	98	24.5
Eleventh	125	100	25

The first thing to be noticed about this table is that total production increases each year *because of the saving*, and would not have increased without it. (It is possible no doubt to imagine that improvements and new inventions merely in *replaced* machinery and other capital goods of a value no greater than the old would increase the national productivity; but this increase would amount to very little, and the argument in any case assumes enough *prior* investment to have made the existing machinery possible.) The saving has been used year after year to increase the quantity or improve the quality of existing machinery, and so to increase the nation's output of goods. There is, it is true (if that for some strange reason is considered an objection), a larger and larger "cake" each year. Each year, it is true, not *all* of the currently produced "cake" is consumed. But there is

* This of course assumes the process of saving and investment to have been already under way at the same rate.

no irrational or cumulative consumer restraint. For each year a larger and larger cake is in fact consumed; until, at the end of eleven years (in our illustration), the annual consumers' cake alone is equal to the combined consumers' and producers' cakes of the first year. Moreover, the capital equipment, the ability to produce goods, is itself 25 per cent greater than in the first year.

Let us observe a few other points. The fact that 20 per cent of the national income goes each year for saving does not upset the consumers' goods industries in the least. If they sold only the 80 units they produced in the first year (and there were no rise in prices caused by unsatisfied demand) they would certainly not be foolish enough to build their production plans on the assumption that they were going to sell 100 units in the second year. The consumers' goods industries, in other words, are *already geared* to the assumption that the past situation in regard to the rate of savings will continue. Only an unexpected *sudden and substantial increase* in savings would unsettle them and leave them with unsold goods.

But the same unsettlement, as we have already observed, would be caused in the *capital* goods industries by a sudden and substantial *decrease* in savings. If money that would previously have been used for savings were thrown into the purchase of consumers' goods, it would not increase employment but merely lead to an increase in the price of consumption goods and to a decrease in the price of capital goods. Its first effect on net balance would be to force shifts in employment and temporarily to *decrease* employment by its effect on the capital goods industries. And its long-run effect would be to reduce production below the level that would otherwise have been achieved.

3

The enemies of saving are not through. They begin by drawing a distinction, which is proper enough, between "savings" and "investment." But then they start to talk as if the two were independent variables and as if it were merely an accident that they should ever equal each other. These writers paint a portentous picture. On the one side are savers automatically, pointlessly, stupidly continuing to save; on the other side are limited "investment opportunities" that cannot absorb this saving. The result, alas, is stagnation. The only solution, they declare, is for the government to expropriate these stupid and harmful savings and to invent its own projects, even if

these are only useless ditches or pyramids, to use up the money and provide employment.

There is so much that is false in this picture and "solution" that we can here point only to some of the main fallacies. "Savings" can exceed "investment" only by the amounts that are actually *hoarded in cash*. Few people nowadays, in a modern industrial community like the United States, hoard coins and bills in stockings or under mattresses. To the small extent that this may occur, it has already been reflected in the production plans of business and in the price level. It is not ordinarily even cumulative: dishoarding, as eccentric recluses die and their hoards are discovered and dissipated, probably offsets new hoarding. In fact, the whole amount involved is probably insignificant in its effect on business activity.

If money is kept either in savings banks or commercial banks, as we have already seen, the banks are eager to lend and invest it. They cannot afford to have idle funds. The only thing that will cause people generally to increase their holdings of cash, or that will cause banks to hold funds idle and lose the interest on them, is, as we have seen, either fear that prices of goods are going to fall or the fear of banks that they will be taking too great a risk with their principal. But this means that signs of a depression have already appeared, and have caused the hoarding, rather than that the hoarding has started the depression.

Apart from this negligible hoarding of cash, then (and even this exception might be thought of as a direct "investment" in money itself) "savings" and "investment" are brought into equilibrium with each other in the same way that the supply of and demand for any commodity are brought into equilibrium. For we may define "savings" and "investment" as constituting respectively the supply of and demand for new capital. And just as the supply of and demand for any other commodity are equalized by price, so the supply of and demand for capital are equalized by interest rates. The interest rate is merely the special name for the price of loaned capital. It is a price like any other.

This whole subject has been so appallingly confused in recent years by complicated sophistries and disastrous governmental policies based upon them that one almost despairs of getting back to common sense and sanity about it. There is a psychopathic fear of "excessive" interest rates. It is argued that if interest rates are too high it will not be profitable for industry to borrow and invest in new plants and

machines. This argument has been so effective that governments everywhere in recent decades have pursued artificial "cheap money" policies. But the argument, in its concern with increasing the demand for capital, overlooks the effect of these policies on the supply of capital. It is one more example of the fallacy of looking at the effects of a policy only on one group and forgetting the effects on another.

If interest rates are artificially kept too low in relation to risks, funds will neither be saved nor lent. The cheap-money proponents believe that saving goes on automatically, regardless of the interest rate, because the sated rich have nothing else that they can do with their money. They do not stop to tell us at precisely what personal income level a man saves a fixed minimum amount regardless of the rate of interest or the risk at which he can lend it.

The fact is that, though the volume of saving of the very rich is doubtless affected much less proportionately than that of the moderately well-off by changes in the interest rate, practically everyone's saving is affected in some degree. To argue, on the basis of an extreme example, that the volume of real savings would not be reduced by a substantial reduction in the interest rate, is like arguing that the total production of sugar would not be reduced by a substantial fall of its price because the efficient, low-cost producers would still raise as much as before. The argument overlooks the marginal saver, and even, indeed, the great majority of savers.

The effect of keeping interest rates artificially low, in fact, is eventually the same as that of keeping any other price below the natural market. It increases demand and reduces supply. It increases the demand for capital and reduces the supply of real capital. It brings about a scarcity. It creates economic distortions. It is true, no doubt, that an artificial reduction in the interest rate encourages increased borrowing. It tends, in fact, to encourage highly speculative ventures that cannot continue except under the artificial conditions that gave them birth. On the supply side, the artificial reduction of interest rates discourages normal thrift and saving. It brings about a comparative shortage of real capital.

The money rate can, indeed, be kept artificially low only by continuous new injections of currency or bank credit in place of real savings. This can create the illusion of more capital just as the addition of water can create the illusion of more milk. But it is a

policy of continuous inflation. It is obviously a process involving cumulative danger. The money rate will rise and a crisis will develop if the inflation is reversed, or merely brought to a halt, or even continued at a diminished rate. Cheap money policies, in short, eventually bring about far more violent oscillations in business than those they are designed to remedy or prevent.

If no effort is made to tamper with money rates through inflationary governmental policies, increased savings create their own demand by lowering interest rates in a natural manner. The greater supply of savings seeking investment forces savers to accept lower rates. But lower rates also mean that more enterprises can afford to borrow because their prospective profit on the new machines or plants they buy with the proceeds seems likely to exceed what they have to pay for the borrowed funds.

4

We come now to the last fallacy about saving with which I intend to deal. This is the frequent assumption that there is a fixed limit to the amount of new capital that can be absorbed, or even that the limit of capital expansion has already been reached. It is incredible that such a view could prevail even among the ignorant, let alone that it could be held by any trained economist. Almost the whole wealth of the modern world, nearly everything that distinguishes it from the pre-industrial world of the seventeenth century, consists of its accumulated capital.

This capital is made up in part of many things that might better be called consumers' durable goods—automobiles, refrigerators, furniture, schools, colleges, churches, libraries, hospitals and above all private homes. Never in the history of the world has there been enough of these. There is still, with the postponed building and outright destruction of World War II, a desperate shortage of them. But even if there were enough homes from a purely numerical point of view, *qualitative* improvements are possible and desirable without definite limit in all but the very best houses.

The second part of capital is what we may call capital proper. It consists of the tools of production, including everything from the crudest axe, knife or plow to the finest machine tool, the greatest electric generator or cyclotron, or the most wonderfully equipped factory. Here, too, quantitatively and especially qualitatively, there

is no limit to the expansion that is possible and desirable. There will not be a "surplus" of capital until the most backward country is as well equipped technologically as the most advanced, until the most inefficient factory in America is brought abreast of the factory with the latest and most elaborate equipment, and until the most modern tools of production have reached a point where human ingenuity is at a dead end, and can improve them no further. As long as any of these conditions remain unfulfilled, there will be indefinite room for more capital.

But how can the additional capital be "absorbed"? How can it be "paid for"? If it is set aside and saved, it will absorb itself and pay for itself. For producers invest in new capital goods—that is, they buy new and better and more ingenious tools—because these tools *reduce cost of production*. They either bring into existence goods that completely unaided hand labor could not bring into existence at all (and this now includes most of the goods around us—books, typewriters, automobiles, locomotives, suspension bridges); or they increase enormously the quantities in which these can be produced; or (and this is merely saying these things in a different way) they reduce *unit* costs of production. And as there is no assignable limit to the extent to which unit costs of production can be reduced—until everything can be produced at no cost at all—there is no assignable limit to the amount of new capital that can be absorbed.

The steady reduction of unit costs of production by the addition of new capital does either one of two things, or both. It reduces the costs of goods to consumers, and it increases the wages of the labor that uses the new machines because it increases the productive power of that labor. Thus a new machine benefits both the people who work on it directly and the great body of consumers. In the case of consumers we may say either that it supplies them with more and better goods for the same money, or, what is the same thing, that it increases their real incomes. In the case of the workers who use the new machines it increases their real wages in a double way by increasing their money wages as well. A typical illustration is the automobile business. The American automobile industry pays the highest wages in the world, and among the very highest even in America. Yet American motor car makers can undersell the rest of the world, because their unit cost is lower. And the secret is that the capital used in making American automobiles is greater per worker and per car than anywhere else in the world.

And yet there are people who think we have reached the end of this process, and still others who think that even if we haven't, the world is foolish to go on saving and adding to its stock of capital.

It should not be difficult to decide, after our analysis, with whom the real folly lies.

CHAPTER 15

The Mature Economy Controversy

ECONOMIC MATURITY AND ECONOMIC PROGRESS¹

ALVIN H. HANSEN²

Professor Hansen here discusses the problem of full employment from a long-run point of view. He argues that our economy may be approaching maturity and stagnation because of (1) the declining rate of population growth, (2) the disappearance of the frontier, and (3) the lack of great new inventions.

Overwhelmingly significant, but as yet all too little considered by economists, is the profound change which we are currently undergoing in the rate of population growth. In the decade of the nineteen-twenties the population of the United States increased by 16,000,000—an absolute growth equal to that of the pre-war decade and in excess of any other decade in our history. In the current decade we are adding only half this number to our population, and the best forecasts indicate a decline to a third in the decade which we are about to enter.

Inadequate as the data are, it appears that the prodigious growth of population in the nineteenth century was something unique in history. Gathering momentum with the progress of modern science and transportation, the absolute growth in western Europe mounted decade by decade until the great World War; and in the United States it reached the highest level, as I have just noted, in the post-war decade. The upward surge began with relatively small accretions which rapidly swelled into a flood. But the advancing tide has

¹ This selection is reprinted by kind permission of publisher and author from Alvin H. Hansen, "Economic Progress and Declining Population Growth," *American Economic Review*, Volume XXIX, No. 1, Part I, March, 1939, pages 1-15.

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come to a sudden halt and the accretions are dwindling toward zero.

Thus, with the prospect of actual contraction confronting us, already we are in the midst of a drastic decline in the rate of population growth. Whatever the future decades may bring, this present fact is already upon us; and it behooves us as economists to take cognizance of the significance of this revolutionary change in our economic life. . . .

Adam Smith regarded growth of population as at once a consequence and a cause of economic progress. Increasing division of labor would, he argued, bring about greater productivity, and this would furnish an enlarged revenue and stock, from which would flow an enlarged wages fund, an increased demand for labor, higher wages, and so economic conditions favorable for population growth. Now a growing population, by widening the market and by fostering inventiveness, in turn facilitated, he thought, division of labor and so the production of wealth. Thus he arrived at an optimistic conclusion. Population growth, he held, stimulated progress and this in turn stimulated further growth and expansion. In contrast, the pessimistic analyses of Malthus and Ricardo stressed the limitation of natural resources and the danger of an increasing population's pressing down the margin of cultivation to a point at which real income would be reduced to a bare subsistence level. In this static analysis the more dynamic approach of Adam Smith was quite forgotten. If we wish to get a clear insight into the economic consequences of the current decline in population growth, it is necessary to return to the suggestion of Adam Smith and to explore more fully the causal interconnection between economic progress, capital formation and population growth.

Economic analysis from the earliest development of our science has been concerned with the role played by economic progress. Various writers have included under this caption different things; but for our purpose we may say that the constituent elements of economic progress are (a) inventions, (b) the discovery and development of new territory and new resources, and (c) the growth of population. Each of these in turn, severally and in combination, has opened investment outlets and caused a rapid growth of capital formation.

The earlier economists were concerned chiefly with the effect of economic progress upon the volume of output, or in other words, upon the level of real income. For them economic progress affected

the economic life mainly, if not exclusively, in terms of rising productivity and higher real income per capita. . . .

More recently the role of economic progress in the maintenance of full employment of the productive resources has come under consideration. The earlier economists assumed that the economic system tended automatically to produce full employment of resources. Some unemployment there was periodically, owing to the fluctuations incident to the business cycle; but in the upswing phase of the cyclical movement the economy was believed to function in a manner tending to bring about full recovery—maximum output and employment. This view was inspired by a century in which the forces of economic progress were powerful and strong, in which investment outlets were numerous and alluring. Spiethoff saw clearly that technological progress, the development of new industries, the discovery of new resources, the opening of new territory were the basic causes of the boom, which in turn was the progenitor of depression. Indeed he believed that once the main resources of the globe had been discovered and exploited, once the whole world had been brought under the sway of the machine technique, the leading disturbing factors which underlie the fluctuations of the cycle would have spent their force and an era of relative economic stability would ensue. But he did not raise the question whether such stability would be achieved at a full-employment and full-income level.

The business cycle was *par excellence* the problem of the nineteenth century. But the main problem of our times, and particularly in the United States, is the problem of full employment. Yet paradoxical as it may seem, the nineteenth century was little concerned with, and understood but dimly, the character of the business cycle. Indeed, so long as the problem of full employment was not pressing, it was not necessary to worry unduly about the temporary unemployment incident to the swings of the cycle. Not until the problem of full employment of our productive resources from the long-run secular standpoint was upon us, were we compelled to give serious consideration to those factors and forces in our economy which tend to make business recoveries weak and anaemic and which tend to prolong and deepen the course of depressions. This is the essence of secular stagnation—sick recoveries which die in their infancy and depressions which feed on themselves and leave a hard and seemingly immovable core of unemployment.

In every great crisis the struggle of contending groups maneuvering for an advantageous position amidst rapid change whips up the froth and fury of political and social controversy. Always there is present the temptation to explain the course of events in terms of the more superficial phenomena which are frequently manifestations rather than causes of change. It is the peculiar function of the economist, however, to look deeper into the underlying economic realities and to discover in these, if possible, the causes of the most obstinate problem of our time—the problem of under-employment. Fundamental to an understanding of this problem are the changes in the “external” forces, if I may so describe them, which underlie economic progress—changes in the character of technological innovations, in the availability of new territory, and in the growth of population.

The expanding economy of the last century called forth a prodigious growth of capital formation. So much was this the case, that this era in history has by common consent been called the capitalistic period. No one disputes the thesis that without this vast accumulation of capital we should never have witnessed the great rise in the standard of living achieved since the beginning of the Industrial Revolution. But it is not the effect of capital formation upon real income to which I wish especially to direct attention. What I wish to stress in this paper is rather the role played by the process of capital formation in securing at each point in this ascending income scale fairly full employment of the productive resources and therefore the maximum income possible under the then prevailing level of technological development. For it is an indisputable fact that the prevailing economic system has never been able to reach reasonably full employment or the attainment of its currently realizable real income without making large investment expenditures. The basis for this imperious economic necessity has been thoroughly explored in the last half century in the great literature beginning with Tougan-Baranowsky and Wicksell on saving and investment. I shall not attempt any summary statement of this analysis. Nor is this necessary; for I take it that it is accepted by all schools of current economic thought that full employment and the maximum currently attainable income level cannot be reached in the modern free enterprise economy without a volume of investment expenditures adequate to fill the gap between consumption expenditures and that level of income

which could be achieved were all the factors employed. In this somewhat truistic statement I hope I have succeeded in escaping a hornets' nest of economic controversy.

Thus we may postulate a consensus on the thesis that in the absence of a positive program designed to stimulate consumption, full employment of the productive resources is essentially a function of the vigor of investment activity. . . . Yet all in all, I venture to assert that the role of the rate of interest as a determinant of investment has occupied a place larger than it deserves in our thinking. If this be granted, we are forced to regard the factors which underlie economic progress as the dominant determinants of investment and employment.

A growth in real investment may take the form either of a deepening of capital or of a widening of capital, as Hawtrey has aptly put it. The deepening process means that more capital is used per unit of output, while the widening process means that capital formation grows *pari passu* with the increase in the output of final goods. If the ratio of real capital to real income remains constant, there is no deepening of capital; but if this ratio is constant and real income rises, then there is a widening of capital. . . .

In order to get some insight into the effect of population growth upon capital formation, it is necessary to consider the role it plays in conjunction with other factors in the widening and deepening process. The widening of capital is a function of an increase in final output, which in turn is due partly to an increase in population and partly to an increase in per capita productivity, arising from causes other than a larger use of capital per unit of output. On the other hand, the deepening of capital results partly from cost-reducing changes in technique, partly (though this is probably a much less significant factor) from a reduction in the rate of interest, and partly from changes in the character of the output as a whole, with special reference to the amount of capital required to produce it.

Now the rate of population growth must necessarily play an important role in determining the character of the output; in other words, the composition of the flow of final goods. Thus a rapidly growing population will demand a much larger per capita volume of new residential building construction than will a stationary population. A stationary population with its larger proportion of old people may perhaps demand more personal services; and the composition of consumer demand will have an important influence on the quantity

of capital required. The demand for housing calls for large capital outlays, while the demand for personal services can be met without making large investment expenditures. It is therefore not unlikely that a shift from a rapidly growing population to a stationary or declining one may so alter the composition of the final flow of consumption goods that the ratio of capital to output as a whole will tend to decline.

In the beginning stages of modern capitalism both the deepening and the widening processes of capital formation were developing side by side. But in its later stages the deepening process, taking the economy as a whole, rapidly diminished. And now with the rapid cessation of population growth, even the widening process may slow down. Moreover it is possible that capital-saving inventions may cause capital formation in many industries to lag behind the increase in output.

An interesting problem for statistical research would be to determine the proportion of investment in the nineteenth century which could be attributed (a) to population growth, (b) to the opening up of new territory and the discovery of new resources, and (c) to technical innovations. Such an analysis it has not been possible for me to make, and I shall venture only a few rough estimates together with some qualitative judgments. With respect to population growth some insight into the problem may perhaps be gained by considering first the role of population growth in the rise of aggregate real income. The various estimates agree that the annual rate of growth of physical output up to the World War was roughly three per cent in western Europe and nearly four per cent in the United States. Of this average annual increase something less than half of the three per cent increase in western Europe can be attributed to population growth, while something more than half of the annual increase in the United States can be assigned to the increase in the labor supply. Thus it appears that per capita output has increased both in western Europe and in the United States at approximately one and one-half per cent per annum. This increase can be attributed mainly to changes in technique and to the exploitation of new natural resources.

We have already noted that capital formation has progressed at about the same rate as the rise in aggregate output. Thus, as a first approximation, we may say that the growth of population in the last half of the nineteenth century was responsible for about forty per cent of the total volume of capital formation in western Europe and

about sixty per cent of the capital formation in the United States. If this is even approximately correct, it will be seen what an important outlet for investment is being closed by reason of the current rapid decline in population growth.

Obviously the growth of population affects capital formation most directly in the field of construction, especially residential building. From decade to decade the increase in the number of dwellings had maintained a close relation to the increase in population. In the decade of the twenties, however, the increase in houses ran about twenty-five per cent in excess of previous decennial increases in relation to population. According to Kuznets, during the seven prosperous years 1923 to 1929, a quarter of the net capital formation was residential building. But the effect of population growth on capital formation is, of course, felt in other spheres as well. This is notably true of all the various municipal and public utilities, and also of the manufacture of essential consumers' goods.

An interesting excursus would lead us into a consideration of the problem how far an increase in population itself contributed to a more efficient technique and so was in part responsible for the rise in per capita real income. According to the older Malthusian view, the growth of population would act counter to the effect of technological progress upon per capita productivity, and would thus slow down the rise in per capita real income. If this were correct, population growth considered by itself alone would tend to check the rise in per capita consumption, and this in turn, *via* the so-called *Relation*, would affect the volume of capital formation. According to the optimum population theory, however, it may not infrequently be the case, and indeed probably was during the greater part of the nineteenth century, that population growth itself facilitated mass production methods and accelerated the progress of technique. If this be correct, population growth was itself responsible for a part of the rise in per capita real income, and this, *via* the influence of a rising consumption upon investment, stimulated capital formation. Thus it is quite possible that population growth may have acted both directly and indirectly to stimulate the volume of capital formation.

It is not possible, I think, to make even an approximate estimate of the proportion of the new capital created in the nineteenth century which was a direct consequence of the opening up of new territory. The development of new countries was indeed so closely intertwined with the growth of population that it would be difficult

to avoid double counting. What proportion of new capital formation in the United States went each year into the western frontier we do not know, but it must have been very considerable. Apparently about one-fourth of the total capital accumulations of England were invested abroad by 1914, and one-seventh of those of France.

These figures, while only suggestive, point unmistakably to the conclusion that the opening of new territory and the growth of population were together responsible for a very large fraction—possibly somewhere near one-half—of the total volume of new capital formation in the nineteenth century. These outlets for new investment are rapidly being closed. The report on *Limits of Land Settlement* by President Isaiah Bowman and others may be regarded as conclusive in its findings that there are no important areas left for exploitation and settlement. So far as population is concerned, that of western Europe has already virtually reached a standstill; but that in eastern Europe, notably in Russia, is still growing, and so also is that in the Orient. And much of this area will probably experience a considerable industrialization. But it is not yet clear how far the mature industrial countries will participate in this development through capital export. Russia still has a long way to go before she becomes completely industrialized; but foreign capital is not likely to play any significant role in this process. India will offer some opportunity for British investment, but the total is likely to be small relative to the volume of British foreign investments in the nineteenth century. China and the Orient generally offer, in view of the present and prospective turmoil in that area, relatively meager investment opportunities. At all events, no one is likely to challenge the statement that foreign investment will in the next fifty years play an incomparably smaller role than was the case in the nineteenth century.

Thus the outlets for new investment are rapidly narrowing down to those created by the progress of technology. To be sure, the progress of technology itself played in the nineteenth century a decisive role in the opening of new territory and as a stimulus to population growth. But while technology can facilitate the opening of new territory, it cannot create a new world or make the old one bigger than it is. And while the advance of science, by reducing the death rate, was a major cause of the vast nineteenth-century increase in population, no important further gains in this direction can possibly offset the prevailing low birth rate. Thus the further progress of

science can operate to open investment outlets only through its direct influence on the technique of production.

We are thus rapidly entering a world in which we must fall back upon a more rapid advance of technology than in the past if we are to find private investment opportunities adequate to maintain full employment. Should we accept the advice of those who would declare a moratorium on invention and technical progress, this one remaining avenue for private investment would also be closed. There can be no greater error in the analysis of the economic trends of our times than that which finds in the advance of technology, broadly conceived, a major cause of unemployment. It is true that we cannot discount the problem of technological unemployment, a problem which may be intensified by the apparently growing importance of capital-saving inventions. But, on the other side, we cannot afford to neglect the type of innovation which creates new industries and which thereby opens new outlets for real investment. The problem of our generation is, above all, the problem of inadequate private investment outlets. What we need is not a slowing down in the progress of science and technology, but rather an acceleration of that rate.

Of first-rate importance is the development of new industries. There is certainly no basis for the assumption that these are a thing of the past. But there is equally no basis for the assumption that we can take for granted the rapid emergence of new industries as rich in investment opportunities as the railroad, or more recently the automobile, together with all the related developments, including the construction of public roads, to which it gave rise. Nor is there any basis, either in history or in theory, for the assumption that the rise of new industries proceeds inevitably at a uniform pace. The growth of modern industry has not come in terms of millions of small increments of change giving rise to a smooth and even development. Characteristically it has come by gigantic leaps and bounds. Very often the change can best be described as discontinuous, lumpy, and jerky, as indeed D. H. Robertson has so vividly done. And when a revolutionary new industry like the railroad or the automobile, after having initiated in its youth a powerful upward surge of investment activity, reaches maturity and ceases to grow, as all industries finally must, the whole economy must experience a profound stagnation, unless indeed new developments take its place. It is not enough that a mature industry continues its activity at a high level on a horizontal

plane. The fact that new railroad mileage continued to be built at about the same rate through the seventies, eighties and nineties was not sufficient. It is the *cessation of growth* which is disastrous. It is in connection with the growth, maturity and decline of great industries that the principle of acceleration operates with peculiar force. And when giant new industries have spent their force, it *may* take a long time before something else of equal magnitude emerges. In fact nothing has emerged in the decade in which we are now living. This basic fact, together with the virtual cessation of public investment by state and local governmental bodies, as indicated by a decline of \$2,000,000,000 in their net public debt since 1932, explains in large measure the necessary rise in federal expenditures.

Spiethoff was quite right when he argued that a vigorous recovery is not just spontaneously born from the womb of the preceding depression. Some small recovery must indeed arise sooner or later merely because of the growing need for capital replacement. But a full-fledged recovery calls for something more than the mere expenditure of depreciation allowances. It requires a large outlay on new investment, and this awaits the development of great new industries and new techniques. But such new developments are not currently available in adequate volume. It is my growing conviction that the combined effect of the decline in population growth, together with the failure of any really important innovations of a magnitude sufficient to absorb large capital outlays, weighs very heavily as an explanation for the failure of the recent recovery to reach full employment. Other factors are certainly significant and important, particularly our failure to control the cost structure and to grapple effectively with specific situations, such as those presented by the railroads and by building construction.

We have noted that the approaching cessation of population growth and the disappearance of new territory for settlement and exploitation may cut off a half or more of the investment outlets which we were wont to make in the past. We are thus compelled to fall back upon that measure of capital formation which is associated with the advance of technique and the rise in per capita output. But current institutional developments are restricting even this outlet. The growing power of trade unions and trade associations, the development of monopolistic competition, of rivalry for the market through expensive persuasion and advertising, instead of through price competition, are factors which have rightly of late commanded

much attention among economists. There is, moreover, the tendency to block the advance of technical progress by the shelving of patents.

Under vigorous price competition, new cost-reducing techniques were compulsorily introduced even though the scrapping of obsolete but undepreciated machinery entailed a capital loss. But under the monopoly principle of obsolescence new machines will not be introduced until the undepreciated value of the old machine will at least be covered by the economies of the new technique. Thus progress is slowed down, and outlets for new capital formation, available under a more ruthless competitive society, are cut off. Capital losses which could not be avoided under rigorous price competition can be and are avoided under an economic system more closely integrated by intercorporate association and imperfect competition. If we are to save the one remaining outlet for private capital formation, deliberate action of a far bolder character than hitherto envisaged must be undertaken in order to make the price system and free enterprise sufficiently responsive to permit at least that measure of capital formation to which the rate of technological progress had accustomed us in the past.

Yet even though this much were achieved, it is necessary to recognize that such a rate of progress would not provide sufficient investment outlets to give us full employment of our resources. With a stationary population we could maintain as rapid a rise in per capita real income as that experienced in the past, by making annually only half the volume of new investment to which we have been accustomed. A volume of investment adequate to provide full employment could give us an annual percentage increase in per capita output greatly in excess of any hitherto attained.

Various measures have been offered to maintain full employment in the absence of an adequate rate of technological progress and of the development of new industries. Consumption may be strengthened by the relief from taxes which drain off a stream of income which otherwise would flow into consumption channels. Public investment may usefully be made in human and natural resources and in consumers' capital goods of a collective character designed to serve the physical, recreational and cultural needs of the community as a whole. But we cannot afford to be blind to the unmistakable fact that a solution along these lines raises serious problems of economic workability and political administration.

How far such a program, whether financed by taxation or by borrowing, can be carried out without adversely affecting the system of free enterprise is a problem with which economists, I predict, will have to wrestle in the future far more intensely than in the past. Can a rising public debt owned internally be serviced by a scheme of taxation which will not adversely affect the marginal return on new investment or the marginal cost of borrowing? Can any tax system, designed to increase the propensity to consume by means of a drastic change in income distribution, be devised which will not progressively encroach on private investment?

As so often in economic life, we are confronted by a dilemma. Continued unemployment on a vast scale, resulting from inadequate private investment outlets, could be expected sooner or later to lead straight into an all-round regimented economy. But so also, by an indirect route and a slower process, might a greatly extended program of public expenditures. And from the standpoint of economic workability the question needs to be raised how far such a program can be carried out in a democratic society without raising the cost structure to a level which prevents full employment. Thus a challenge is presented to all those countries which have not as yet submitted to the yoke of political dictatorship. In one of our round tables we are discussing divergencies in the success of governmental spending in democratic countries and in totalitarian states. Totalitarian states have the great advantage that they can rigorously check the advance of costs, including wage rates, while engaging in an expansionist program of public investment. Democratic countries cannot in modern times escape from the influence exerted by organized groups upon the operation of the price system. From the standpoint of the workability of the system of free enterprise, there emerges the problem of sovereignty in democratic countries confronted in their internal economies with powerful groups—entrepreneurial and wage-earning—which have robbed the price system of that impersonal and non-political character idealized in the doctrine of *laissez-faire*. It remains still to be seen whether political democracy can in the end survive the disappearance of the automatic price system.

Thus we are confronted with various alternatives. On the one side, there is the proposal to risk a negative governmental policy in the expectation that the recuperative forces to which we have long been accustomed will, in the absence of political interference, reassert

themselves. On the other side, there is the proposal to go forward under full steam with unrestrained governmental expansion until full employment has been reached. Those who have no doubts whatever about the correctness of their economic analyses will not hesitate to make a bold choice of policy. But others, impressed with the stubborn economic realities of a rapidly changing world, on the one side, and the frailties of human nature in its power to make the appropriate adaptation to change, on the other, will not be so sure, and may prefer to take a course that risks neither a negative policy nor a breakdown of collective management.

THE BOGEY OF ECONOMIC MATURITY¹

GEORGE W. TERBORGH²

Mr. Terborgh here maintains that historical and statistical evidence to support the mature economy doctrine is almost wholly lacking. He urges that we combat the problem of instability without being burdened by the bogey of economic stagnation.

THE FOUR HORSEMEN

Like the Revelation of St. John, this new apocalypse has its four horsemen: declining population growth; the passing of the frontier; the dearth of great new industries; and the growing importance of depreciation reserves. These we shall take up in order. We shall add that because we are summarizing a fully documented report presented at length elsewhere we shall occasionally state our findings more dogmatically than would be proper without this support.

DECLINING RATE OF POPULATION GROWTH

Among the various manifestations of economic maturity, the decline of population growth occupies a pre-eminent position. It is fitting, therefore, that we begin the discussion with this issue.

¹ This selection is reprinted by kind permission of the publishers from George Terborgh, "The Bogey of Economic Maturity—A Summary," *Machinery and Allied Products Institute*, Chicago, 1946, pages 20-30, 58-60.

² George Willard Terborgh (1897-) is director of research, Machinery and Allied Products Institute.

As to the facts of population growth there is no dispute. The rate of increase has been tapering in nearly all western European countries for several decades. In some, population has already passed its peak, a condition expected in many more within twenty or thirty years. In the United States the rate of increase (in relative terms) turned down about the middle of the last century and has been declining irregularly ever since, the process being now more than half completed. A stationary population is in prospect some time before the year 2000.

Effect on Investment

It is argued by the stagnationists that population growth generates investment opportunities that are lacking in its absence; hence that an economy with a rapidly expanding population should have, other things equal, a higher rate of capital formation than one which has attained demographic maturity. The yearly increment of population must be supplied with its proportionate quota of capital goods from the ground up as it were; whereas the existing population, already so equipped, requires investment only to replace the current consumption of such goods and to supply the increase in the per capita stock thereof resulting from technological advance and a rising standard of living. From this it is inferred that the approach of demographic maturity must result in less capital formation than a rapidly growing population of like numbers would require under similar conditions.

While this statement is oversimplified, it has merit as a generalization. But by itself it proves nothing. The real problem posed by the theory is not whether, other things equal, a stationary population will have less investment than one that is growing; it is whether it will have less *relative to its saving*. It is possible, obviously, that demographic maturity may curtail saving as well as investment, thus avoiding the oversaving which so disturbs the prophets of stagnation. Curiously enough, the stagnationists have neglected almost completely to investigate this angle, but instead have plied us with lugubrious conclusions based on a purely one-sided consideration of the problem.

Effect on Saving

There are in fact good reasons to believe that a declining rate of population growth tends to retard not only investment but the

accumulation of savings available to finance it. The first of these has to do with the interdependence of saving and investment. Writers on economic maturity have generally assumed that saving is done for one set of reasons, investment for another, the two being quite unrelated. This is true only in part. In many cases the motive for saving is simply the expansion of the saver's capital assets in general, the amount saved being largely independent of the character of the assets acquired, but in others saving occurs because of the desire of the saver to acquire particular capital goods for his own use, and would not take place except for the specific investment. In the latter case we can say that he saves *because he invests*. The relative importance of the two motives cannot reliably be assessed, but our analysis indicates that a very substantial fraction of all saving would cease if the particular investments for which it is accumulated also ceased. It follows that if demographic maturity eliminates some of the investment activity that would prevail in a growing population this effect is partially compensated by a reduction of saving.

The second reason concerns the effect of the changing age composition of the population on the supply of savings. In 1850 there were 80 people over 65 years of age for every 1000 workers in the American labor force. By 1940 the figure had risen to 170. By the year 2000 there will be approximately 310. Since people over 65 are on balance consuming their capital (dissaving), the assets which they liquidate to obtain funds for consumption provide an outlet for part of the savings of the population of working age, leaving that much less to be absorbed by investment in new capital goods. There are indications that before the war something like a third of the total savings of individuals went to finance individual dissaving, most of which presumably represented the dissaving of the older age groups. With these groups destined to double again in relative importance before our population comes to a standstill, it is obvious that the proportion of total savings remaining for absorption in new capital formation should by then be greatly reduced.

For these and other reasons there is ample ground for the belief that a decline in population growth brings a relative reduction not only in investment but also in funds available for it. On which side the effect is greater it is impossible to say. Certainly the question cannot be settled by polemics. Like the music, the argument goes 'round and 'round. Why not, then, look at the evidence? Fortunately, there is an abundance, which the stagnationists have for some reason

neglected to investigate, contenting themselves rather with mood-painting and dialectics.

Statistical Evidence

If there is any significant correlation between the rate of population growth and the rate of economic progress we should be able to discover it by comparing, for like periods, the records of a number of countries in different stages of their demographic evolution, or, alternatively, by comparing the record of the same countries in different phases of their own development. Our study has exhausted the available data by both methods. It can be said flatly that *there is no evidence that countries with high rates of population growth have had in general any more rapid rise in their standard of living or in per capita production than others with slow population growth*. We have been unable by either method to detect any correlation between demographic expansion and economic progress.

For seventy years the United States experienced a declining rate of population growth with no indication of declining economic health and vigor. Indeed, the first three decades of the twentieth century, when this process was well advanced, showed a more dynamic and sustained prosperity than the last three decades of the nineteenth, when it was beginning. Yet we are asked to believe that the completion of this process over the next fifty years spells economic debility and stagnation. Surely we are entitled to ask why the remainder of this evolution must have so disastrous an impact when the first half was safely and successfully negotiated.

Had the stagnationists prophesied in the middle of the nineteenth century, before the great industrial nations had had actual experience of declining rates of population growth, their dire predictions, pregnant with the menace of the unknown, might well have struck terror to the stoutest heart. But the revelation was delayed, recalling Molière's *bourgeois gentilhomme*, who was suddenly made to realize, in middle age, that he had been speaking prose all his life. When the vision of the mature economy finally dawned, the decline of population growth was likewise in middle age, an old friend of seventy years' standing. The transformation of this familiar phenomenon into a monster of evil portent is an accomplishment for which we must confess a certain admiration; nevertheless, the product of this wizardry remains, essentially, an ideological spook.

THE PASSING OF THE FRONTIER

Writers on economic maturity lay great emphasis on the investment opportunities opened up by the development of new territories like the American West. Such development, in their opinion, provides a special nonrecurrent outlet for savings. They infer, therefore, that the passing of the frontier in this country, unless compensated through the development of foreign frontiers by American capital (and they expect such compensation, if any, to be only partial) must leave a dearth of investment opportunity and a plethora of savings, with all the evil consequences presumed to follow in their wake.

Ancient History

The timing of this argument is bad. The western frontier passed fifty years ago. If it created a dearth of investment opportunity we should have heard about it long before the thirties. There is no evidence that it did so, however. The first three decades of the twentieth century, following the disappearance of the frontier, showed a slightly higher ratio of capital formation to national product than the last three decades of the nineteenth, when the frontier was flourishing. Moreover, it was a period of more active and sustained prosperity. Unless it can be contended that the great depression of the thirties was in some obscure and mysterious way a delayed reaction to the passing of the frontier forty years earlier, it can be said without equivocation that *there is no historical evidence that it impaired the functioning of the American economy.*

This is so obvious a fact, indeed, that the stagnationists have felt obliged to account for it on the ground that we shifted from the development of our own frontier to the development of frontiers in foreign lands. But here again their timing is faulty. We continued to be importers of capital on balance for 20 years after the passing of our own frontier. During this interval we certainly did not compensate by investing in foreign frontiers. The First World War, to be sure, made us a capital exporter, but after its immediate impetus was spent our net balance remained modest, the average for the period 1922-29 being around \$450 million a year, only 2 or 3 percent of our domestic capital formation. Even of this small amount, however, the fraction which went into the development of foreign frontiers—in the sense in which that word is used in the United States—was only very minor, a sum so insignificant indeed that to

hold it out as a "compensation" for the loss of our frontier is palpably absurd.

The passing of the frontier is a tired ghost, exhumed from the grave of yesteryear, whither, in common decency, we should permit it to return.

DEARTH OF GREAT NEW INDUSTRIES

A recurring complaint of stagnationist writers is the present dearth of new industries of major importance from an investment standpoint. It is their practice to explain the vitality of investment in the past by reference to some so-called "new" industry then in a phase of rapid growth. For the early decades of the nineteenth century they cite turnpikes and canals; for the remainder of the century, railroads. For the early years of this century it was electrical industries; for the twenties, the automobile.

Investment in Three Great Industries

This interpretation of economic history recalls one of Nietzsche's aphorisms: "The man is a thinker; that is to say, he makes things simpler than they are." No one will deny that these industries stimulated investment in the periods with which they are so glibly identified. What is usually forgotten in discussions of this subject, however, is that great new industries eventually become great old industries and exert a drag on the growth of capital formation just as formerly they stimulated it. For example, the share of the steam railroad in the national capital formation, after rising from 2 per cent in the thirties of the last century to 15 per cent in the eighties, declined thereafter to 3 per cent in the nineteen-twenties. If the railroad, the electrical industries, and the automobile had been in their rapidly expanding phase at the same time, their impact on the growth of capital formation as a whole would have been tremendous. But they were not. The proportion of all investment falling in the combined electrical lines was expanding when the proportion in railroads was falling off. The percentage going into motor vehicles rose in turn during the declining phase of the electricals. When we combine the percentages for all three outlets, we get the following:

1870-80	14	1900-10	18
1880-90	16	1910-20	16
1890-1900	13	1920-30	20

Although in the twenties the contribution of motor vehicles rose phenomenally and more than offset the decline in the relative importance of railroads and electricals, the proportion of capital formation accounted for by all of these great industries together fluctuated from decade to decade, but with no clear trend. *For fifty years their combined rate of investment rose no faster than capital formation as a whole.*

What does this mean? It means that during the half century these three great industries collectively were no more dynamic than the remaining elements of capital formation collectively. They kept pace with the rise of total investment, but they did not lead it. The dynamism of the "great new industries" of the moment was partially offset by the dragging pace of great old industries, just as the dynamism of the waxing small industries was continually neutralized in part by the drag of waning small industries. There is thus no evidence that investment in major innovations as a class, including the young and old ones alike, has had any higher growth rate than investment in minor innovations as a class. There is no evidence that one "great new industry" is any more dynamic in its impact on capital formation than ten small new industries. The important thing is the size and vigor of the total flow of technological development, not its degree of concentration.

Increasing Dispersion of Innovation

The necessity for a spectacular "new" industry for the support of investment, if it ever existed, is rapidly disappearing. In a primitive economy a single invention like the steam engine can have revolutionary impact, but the chance for such a sensational effect diminishes as the technology becomes more highly elaborated and complex. Progress becomes diffused in thousands of innovations of less consequence individually but with cumulative effects just as dynamic and just as stimulative of investment as the single revolutionary invention in a simple society. Moreover, with the expansion of industrial research, technical progress is not only accelerated but made more even in flow, thus eliminating the gaps between major inventions, and the dependence upon a single activity, which affected the continuity of investment opportunity in an earlier day.

In our judgment it is possible today to obtain a flow of innovation so vigorous and diffused as to exceed, in its stimulus to capital formation, the best achievements of the past, regardless of the appearance

of some "great new industry" comparable to those so nostalgically regarded by the stagnationists. When we recall that expenditures for industrial research had risen even before the war to three times 1929 and twelve times 1920, we must acknowledge that we have a new and potent engine for *creating* investment opportunity on a wholesale basis, the possibilities of which we have only begun to tap. No reason appears why the rate of technological advance should not continue to accelerate.

Incidentally, the march of invention has probably been stepped up on balance by the impact of the war, which has in many cases telescoped into a few years what would otherwise be the progress of decades. We face the postwar era with an unprecedented accumulation of new materials, new techniques, and new products that will create hundreds of new industries and revolutionize scores of old ones. Never in history have we had so huge a backlog of invention awaiting practical application. Even if it were certain that the economy confronts a dearth of "great new industries" in the future—a matter in reality quite unpredictable—the prospect could be regarded with equanimity.

INCREASING IMPORTANCE OF DEPRECIATION RESERVES

This is perhaps the most extraordinary item in the catalog of sorrows that constitutes the theory of the mature economy. Let us introduce it by quoting from Dr. Hansen's testimony before the Temporary National Economic Committee:

"When a society has accumulated a vast amount of capital goods, it is evident that the mere expenditure of depreciation allowances provides wide scope for continuous improvement of plant and equipment. The larger the amount of capital equipment, the larger will be the depreciation, depletion, and obsolescence allowances which are available each year for capital outlays. Frequently large portions of these allowances are available not merely for renewals and replacements but even for new and additional equipment. The expenditures from depreciation and depletion allowances may often have no relation to any specific worn-out machines. Newly built plant and equipment will not need to be replaced for many years and sometimes even decades, yet the annual depreciation allowances on such equipment will be available year by year for expansion.

"Obviously, a society with large depreciation and depletion allowances can modernize and improve its capital equipment in producing continuously new technics and even at times expanding its plants and equipment without tapping any new savings."

Investment Opportunity is Expansible

This statement reveals a curious conception of the process of capital formation and investment. It implies that the investment opportunities available in any given period are a fixed and predetermined magnitude, and that if they are used up by the expenditure of funds reserved by business enterprises for depreciation there will be no outlet left for the investment of personal savings. The latter are shouldered out of the picture, to stagnate in inactivity. Nothing could be more unrealistic. There is no fixed or predestined volume of investment opportunity to be divided between the internal funds of business organizations and the disposable savings of individuals. Investment is a dynamic and cumulative process which creates opportunities for other investment as it develops. The expansion of one enterprise from internal funds may stimulate expansion elsewhere from external funds, and thus provide indirectly the outlet for personal savings that it fails to provide directly. The Ford Motor Company absorbed no personal savings after the first few thousands of dollars, but the outlets which its development and activity opened up in other companies and other industries have been tremendous.

Enterprises absorb outside funds when they are expanding too fast for their available internal funds. We have always had companies, even in our most prosperous periods, that have grown almost entirely from internal sources, Ford being the classic example. We have always had others, the American Telephone and Telegraph Company for instance, that have resorted more or less continuously to the capital market. Still others have absorbed outside funds in a sporadic and highly irregular manner. This pattern has not proved in the past incompatible with the absorption by business enterprises collectively of a sufficient volume of personal savings. Has anything changed recently to convert the internal funds of business into a menace?

Alleged Trend Toward Financial Self-Sufficiency

It is sometimes argued that the systematic accrual of depreciation allowances by business enterprises, which has become almost uni-

versal since the enactment of the income tax, has augmented their internal funds relative to business capital formation, and has therefore diminished the share financed from personal savings. It is true that before the First World War such allowances were frequently sporadic and highly variable in amount, sometimes even non-existent, and that the amount of depreciation taken was generally somewhat lower in relation to depreciable assets than later. Against this, however, we must weigh the fact that in the earlier period various accounting practices were employed which served as an informal substitute for systematic depreciation policy. Moreover, the plowing back of net earnings during this era was very heavy. We know of no credible evidence that since 1913 industry as a whole has financed any larger fraction of its capital formation from internal funds than it did under comparable conditions before. We can go further. If there is any evidence of trend since 1922, when comprehensive corporate data became available, it points toward greater, rather than less, dependence on outside funds for the financing of business capital requirements. *There is no warrant in the record for the notion that corporate business as a whole is progressing toward financial self-sufficiency.*

All in all, we have here a bogey as hollow, and as spurious, as any in the stagnationist catalog. Perhaps we may be permitted to observe that this is no mean compliment for a bogey . . .

CONCLUSION

The principal conclusion of this discussion is clear. Economic maturity *is* a bogey, the offspring of a body of doctrine both unsubstantiated and insubstantial. We have found no credible evidence that declining population growth has been a cause of secular stagnation, either in this country or abroad, or that it has even impaired the rate of economic progress. We have found no evidence that the American economy in general has suffered from the passing of the frontier. Neither have we discovered any confirmation of the alleged tendency for corporations to finance an increasing proportion of their capital requirements from internal funds. As for the dearth of great new industries, if there is such a dearth—which is far from certain—it is not only much less important than the stagnationists believe; it is by their own admission a phenomenon unrelated to economic maturity. *Historical and statistical evidence for stagnationist theory is almost wholly lacking.*

The American economy confronts many difficult problems unknown to stagnationists' philosophy, and its future will not be wholly a bed of roses even if that philosophy is in error. Once the spectre it conjures is exorcised, however, once the sentence of chronic debility and slow doom is lifted, we can reappraise our economic prospects with fresh courage and renewed optimism.

Two Outstanding Tasks

The system of private enterprise is either dynamic or it is a failure. It is the first task of economic statesmanship, therefore, to create under the altered social, political, and economic conditions of today an environment hospitable to enterprise, sympathetic with its incentives and necessities, sanctioning its rewards. For this will prove in the end the only protection against the continued encroachment of public production and investment.

The second task of economic statesmanship, both public and private, is the evolution of means and policies to banish the spectre of prolonged depressions and mass unemployment. This necessity does not derive from the theory of economic maturity, but springs rather from experience. Granted, as we believe, that the great depression of the thirties was not a manifestation of maturity, it was none the less an historical fact. The rejection of the stagnationist interpretation can neither erase the event itself nor make its repetition more acceptable. The prevention of its recurrence is henceforth an imperative of economic policy.

The rejection of the stagnationist theory does not solve this problem, but it is a necessary prerequisite for its solution. Sound therapy cannot rest on a mistaken diagnosis. If we conceive our task to be the damping of the cyclical fluctuations that have always characterized the economy, we shall do one thing; if on the other hand we fancy ourselves engaged in combating a chronic debility brought on by economic maturity, we shall do another. In the long run it can make a tremendous difference to the economy which diagnosis and course of treatment is espoused as the basis of national policy. For if our appraisal of stagnationist therapeutics is correct, the remedies proposed for economic maturity may well produce the stagnation they are supposed to obviate.

The task of cyclical stabilization is difficult enough without the distraction of stagnationist soothsaying. Even if we renounce the

fatuous perfectionism of "sixty million guaranteed jobs," aspiring rather to the more modest immediate goal of relative stability, the task is still difficult. It is not, however, impossible. To its accomplishment, haunted no longer by the demons of economic maturity, we can proceed with courage and resolution.

PART II PROBLEMS

SECTION VII

The Problem of Labor Relations

THE PROBLEM OF LABOR RELATIONS IN MODERN INDUSTRY is a peculiar outgrowth of the Industrial Revolution and the change in institutions ushered in by machine technology and the factory system. The Industrial Revolution upset the personal relations existing between master and workman; it altered the position of the laborer and profoundly affected his opportunity and manner of earning a livelihood. It transformed economic relationships and made them more subject to pecuniary processes—rendered them more dependent on the vicissitudes of modern industrial society. It precipitated a marked shift from an essentially agricultural to a predominantly industrial economy. The dictates of its machine technology initiated a growth in the optimum size of the industrial plant, favored the development of industry along specialized mass production lines, and eventually tended to bring about a growing concentration of business control. The new technology also increased the amount of capital required for the efficient production of goods under the factory system—thereby tending to cause a decline in the number of individually owned businesses, while simultaneously increasing the proportion of people working for wages.

As a result of these forces and factors, the relations between master and workman, employer and laborer, underwent significant change. The laborer no longer had direct contact with his employer who might now be located in "some far-off front office" in Pittsburgh. Individual bargaining between the single worker and his employer (sometimes a huge corporation) was—because of the difference in financial staying power—no longer characterized by an equality of bargaining strength. The product made by the worker was generally no longer sold in a purely local market and hence had to suffer the competition—often national and international in scope—of other products frequently made by "sweated" or "exploited" labor. Finally, and perhaps most important of all, the worker gradually became impressed with the permanency attaching to his status as a wage earner and lost hope of ever becoming a self-employed laborer—of climbing into the charmed circle of master craftsmen.

Cognizant of these changed conditions, workers sought to combine for self-protection by organizing into trade unions. They felt impelled to engage in collective action in order to insure victory in their battle against insecurity—in order to realize their ambition for job security, higher wages, shorter hours, and better conditions.

The formation of unions marks a drift from individual to collective action. In the United States, however, this collective action has not generally been aimed at the overthrow of capitalism. The majority of American unions have chosen to tread the safe and narrow path of business unionism, working day by day to improve the conditions surrounding the worker's life. For the most part they have renounced ultimate ends, forsaken revolutionary goals, and have up to now remained content to work out their problems within the existing economic framework of capitalism.

Nevertheless in their struggle with employers unions have brought to the fore serious problems, problems which for their solution have at times required legislative, executive, or judicial action by the state in support of one side or the other. Frequently has the government intervened as a rule maker in the industrial arena—now by guaranteeing workers the right to strike and bargain collectively, and now by denying unions the right to engage in secondary boycotts or jurisdictional strikes and by preventing them from making contributions to political parties. All levels of government—local, state, and national—have played a part in influencing the conditions under which workers and their unions deal with employers and associations of employers.

Finding the proper place of unions in our economic order has become the major problem in labor relations. It is a difficult problem, because some managements look upon collective action by workers as a challenge to two basic institutions of a free-enterprise competitive system, namely freedom of contract and private property. These management representatives often regard unions as a threat to their "natural" rights and prerogatives, which—they feel—stand in danger of constant encroachment by union action. The specific issues growing out of this major problem relate to the rights of labor, the proper exercise of union power, the correction of union abuses, and finally the state's part in reconciling and regulating labor-management conflicts. On the successful solution of these and allied problems will, in large part, depend the success of the capitalistic system in which both labor and capital have a vital stake.

CHAPTER 16

Unions and Management

WHY UNIONS? ¹

SIDNEY AND BEATRICE WEBB ²

Unions are pictured here as a collective bulwark arising out of the need for protecting workers against a downward pressure on their wages. This pressure is held to originate with consumers and to be transmitted in a series of price bargains from the consumer to the retailer, the retailer to the wholesaler, the wholesaler to the manufacturer, and the manufacturer to the worker.

It is often taken for granted that the higgling of the market, in which the workman is interested, is confined to the negotiation between himself and his employer. But the share of the aggregate product of the nation's industry which falls to the wage-earners as a class, or to any particular operative—notably the division of that portion which may be regarded as the "debatable land"—depends not merely on the strength or weakness of the workman's position towards the capitalist employer, but also on the strategic position of the employer towards the wholesale trader, that of the wholesale trader towards the shopkeeper, and that of the shopkeeper towards the consumer. The higgling of the market, which, under a system of free competition and Individual Bargaining, determines the conditions of employment, occurs in a chain of bargains linking together the manual worker, the capitalist employer, the wholesale trader, the shopkeeper, and the customer. . . .

We begin with the bargain between the workman and the capitalist employer. We assume that there is only a single situation vacant and only one candidate for it. When the workman applies for the

¹ This selection is reprinted by kind permission of the publishers and the estate of Lord and Lady Passfield from Sidney and Beatrice Webb, *Industrial Democracy*, London: Longmans, Green and Co., Ltd., 1897, pages 654-657, 661-665, 667-671, 673, 676-677.

² Sidney Webb (1859-1947) and Beatrice Webb (1858-1947) [Lord and Lady Passfield] were outstanding Fabian Socialists in England.

post to the employer's foreman, the two parties to the bargain differ considerably in strategic strength. There is first the difference of alternative. If the foreman, and the capitalist employer for whom he acts, fail to come to terms with the workman, they may be put to some inconvenience in arranging the work of the establishment. They may have to persuade the other workmen to work harder or to work overtime; they may even be compelled to leave a machine vacant, and thus run the risk of some delay in the completion of an order. Even if the workman remains obdurate, the worst that the capitalist suffers is a fractional decrease of the year's profit. Meanwhile, he and his foreman, with their wives and families, find their housekeeping quite unaffected; they go on eating and drinking, working and enjoying themselves, whether the bargain with the individual workman has been made or not. Very different is the case with the wage-earner. If he refuses the foreman's terms even for a day, he irrevocably loses his whole day's subsistence. If he has absolutely no other resources than his labor, hunger brings him to his knees the very next morning. Even if he has a little hoard, or a couple of rooms full of furniture, he and his family can only exist by the immediate sacrifice of their cherished provision against calamity, or the stripping of their home. Sooner or later he must come to terms, on pain of starvation or the workhouse. And since success in the higgling of the market is largely determined by the relative eagerness of the parties to come to terms—especially if this eagerness cannot be hid—it is now agreed, even if on this ground alone, "that manual laborers as a class are at a disadvantage in bargaining. . . ."

So far the argument that the isolated workman, unprotected by anything in the nature of Trade Unionism, must necessarily get the worst of the bargain, rests on the assumption that the capitalist employer will take full advantage of his strategic strength, and beat each class of wage-earners down to the lowest possible terms. In so far as this result depends upon the will and intention of each individual employer, the assumption is untrue. A capitalist employer who looks forward, not to one but to many years' production, and who regards his business as a valuable property to be handed down from one generation to another, will, if only for his own sake, bear in mind the probable effect of any reduction upon the permanent efficiency of the establishment. He will know that he cannot subject his workpeople to bad conditions of employment without causing them imperceptibly to deteriorate in the quantity or quality of the

service that they render. As an organiser of men, he will readily appreciate to how great an extent the smooth and expeditious working of a complicated industrial concern depends on each man feeling that he is being treated with consideration, and that he is receiving at least as much as he might be earning elsewhere. But apart from these considerations of mere self-interest, the typical capitalist manufacturer of the present generation, with his increasing education and refinement, his growing political interests and public spirit, will, so long as his own customary income is not interfered with, take a positive pleasure in augmenting the wages and promoting the comfort of his workpeople. Unfortunately, the intelligent, far-sighted, and public-spirited employer is not master of the situation. Unless he is protected by one or other of the dykes or bulwarks presently to be described, he is constantly finding himself as powerless as the workman to withstand the pressure of competitive industry. How this competitive pressure pushes him, in sheer self-defence, to take as much advantage of his workpeople as the most grasping and short-sighted of his rivals, we shall understand by examining the next link in the chain.

Paradoxical as it may appear, in the highly-developed commercial system of the England of to-day the capitalist manufacturer stands at as great a relative disadvantage to the wholesale trader as the isolated workman does to the capitalist manufacturer. In the higgling of the market with the wholesale trader who takes his product, the capitalist manufacturer exhibits the same inferiority of strategic position with regard to the alternative, with regard to knowledge of the circumstances, and with regard to bargaining capacity. First, we have the fact that the manufacturer stands to lose more by failing to sell his product with absolute regularity, than the wholesale trader does by temporarily abstaining from buying. To the manufacturer, with his capital locked up in mills and plant, continuity of employment is all-important. If his mills have to stop even for a single day, he has irrevocably lost that day's gross income, including out-of-pocket expenses for necessary salaries, and maintenance. To the wholesale trader, on the other hand, it is comparatively a small matter that his stocks run low for a short time. His unemployed working-capital is, at worst, gaining deposit interest at the bank, and all he foregoes is a fraction of his profits for the year. Moreover, as the wholesale trader makes his income by a tiny profit per cent on a huge turnover, any particular transaction is comparatively unimpor-

tant to him. The manufacturer, earning a relatively large percentage on a small turnover, is much more concerned about each part of it. In short, whilst the capitalist manufacturer is "a combination in himself" compared with the thousand workmen whom he employs, the wholesale trader is "a combination in himself" compared with the hundreds of manufacturers from whom he buys. . . .

Thus, when the manufacturer negotiates for an order, he is, within certain undefined limits, at the mercy of the wholesale trader. He is told that the price of his product is too high to attract customers; that the shopkeepers find no demand for it; that foreign producers are daily encroaching on the neutral markets; and, finally, that there has just come an offer from a rival manufacturer to supply the same kind of article at a lower price. The manufacturer may doubt these statements, but he has no means of disproving them. He is keenly alive to the fact that his brother manufacturers are as eager as he is to get the order, and some of them, he knows, are always striving to undercut prices. Unless he is a man of substance, able to wait for more profitable orders, or unless his product is a specialty of his own, which no one else makes, he is almost certain to be tempted, rather than lose the business, to accept a lower offer than he meant to. The price he has accepted can only work out in a profit by some lowering of the cost of production. He consults his partners and his foreman as to how this can be effected. Some slight improvement may be possible in the technical process, or a new machine may be introduced. But this takes both time and capital. If neither law nor combination stands in the way, it is far easier to meet the emergency by extracting more work from his operatives for the same pay—by "speeding-up," by lengthening hours, by increased rigor in respect of fines and deductions, or by a positive reduction of time wages or piecework rates. Any idea of introducing better sanitary accommodation or further fencing of machinery is given up, and all the working expenses are reduced to their lowest limit. Whatever reluctance the good manufacturer may have to take this course necessarily disappears when he finds his more necessitous or less scrupulous rivals actually forestalling him. For just as in every trade there are far-sighted and kindly-disposed employers who feel for their workpeople as for themselves, so there are others in whom the desire for personal gain is the dominating passion, and whose lack of intelligence, or financial "shadiness," shuts them out from any other policy than "grinding the faces of the poor." The manu-

facturer of this type needs no pressure from the wholesale trader to stimulate him to take the fullest possible advantage of the necessities of his workpeople; and in face of competition of this kind the good employer has no choice but to yield. Anything, he says to himself, is better for his workpeople than stopping his own mill and driving the trade into such channels. . . .

But we should make a mistake if we imagined that the pressure originated with the wholesale trader. Just as the manufacturer is conscious of his weakness in face of the wholesale trader, so the wholesale trader feels himself helpless before the retail shopkeeper to whom he sells his stock. Here the inferiority is not in any greater loss that would arise if no business were done, for the retailer is impelled to buy by motives exactly as strong as those which impel the wholesale house to sell. Nor is it in any difference in bargaining power. In both these respects the wholesale house may even have the advantage over the shopkeepers. But the shopkeepers have a closer and more up-to-date knowledge of exactly what it is that customers are asking for, and, what is far more important, they can to some extent direct this demand by placing, before the great ignorant body of consumers, one article rather than another. They have, therefore, to be courted by the wholesale trader, and induced to push the particular "lines" that he is interested in. . . . The wholesale trader's only chance of retaining their custom is to show a greater capacity for screwing down the prices of the manufacturers than even the largest shopkeeper possesses. He is therefore driven, as a matter of life and death, to concentrate his attention on extracting, from one manufacturer after another, a continual succession of heavy discounts or special terms of some kind. This, then, is the fundamental reason why the manufacturer finds the wholesale trader so relentless in taking advantage of his strategic position. Though often performing a service of real economic advantage to the community, he can only continue to exist by a constant "squeezing" of all the other agents in production.

We come now to the last link in the chain, the competition between retail shopkeepers to secure customers. Here the superiority in knowledge and technical skill is on the side of the seller, but this is far outweighed by the exceptional freedom of the buyer. The shopkeeper, it is true, is not bound to sell any particular article at any particular time. But he must, on pain of bankruptcy, attract a constant stream of customers for his wares. The customer, on the

other hand, is as free as air. He can buy in one shop as well as in another. He is not even bound to buy at all, and may abstain, not only without loss, but with a positive saving to his pocket. He must, in short, be tempted to buy, and to this end is bent all the shopkeeper's knowledge and capacity. Now, with regard to the general run of commodities, the only way of tempting the great mass of consumers to buy is to offer the article at what they consider a low price. Hence a shopkeeper is always on the look-out for something which he can sell at a lower price than has hitherto been customary, or cheaper than his competitors are selling it at. Competition between shopkeepers becomes, therefore, in all such cases entirely a matter of cutting prices, and the old-fashioned, steady-going business, which once contentedly paid whatever price the wholesale trader asked, is driven to look as sharply after "cheap lines" as the keenest trader. . . .

We thus arrive at the consumer as the ultimate source of that persistent pressure on sellers, which, transmitted through the long chain of bargainings, finally crushes the isolated workman at the base of the pyramid. Yet, paradoxical as it may seem, the consumer is, of all the parties to the transaction, the least personally responsible for the result. For he takes no active part in the process. In the great market of the world, he but accepts what is spontaneously offered to him. He does not, as a rule, even suggest to the shopkeeper that he would like prices lowered. All he does—and it is enough to keep the whole machine in motion—is to demur to paying half a crown for an article, when someone else is offering him the same thing for two shillings. . . .

Such, then, is the general form of the industrial organisation which, in so far as it is not tampered with by monopoly or collective regulation, grows up under "the system of natural liberty." The idea of mutual exchange of services by free and independent producers in a state of economic equality results, not in a simple, but in a highly complex industrial structure which, whether or not consistent with any real Liberty, is strikingly lacking in either Equality or Fraternity. . . .

So far we have mainly concerned ourselves with tracing the stream of pressure to its origin in the private customer. Now we have to consider the equally important fact that, as each class of producers becomes conscious of this pressure, it tries to escape from it, to resist or to evade it. All along the stream we discover the in-

habitants of the "debatable land" raising bulwarks or dykes, sometimes with a view of maintaining quiet backwaters of profit for themselves, sometimes with the object of embanking their Standard of Life against further encroachments. It is in this deliberate resistance to a merely indiscriminate pressure that we shall find, not only the scope of the Methods and Regulations of Trade Unionism by which certain sections of the wage-earners protect and improve the conditions of their employment, but also the fundamental reason for the analogous devices of the other producing classes—the trade secrets, patents and trade marks, the enormous advertising of specialties, the exclusive franchises or concessions, the capitalist manufacturer's struggle to supersede the trader, and the trader's backstair effort to do without the capitalist manufacturer, together with all the desperate attempts to form rings and trusts, syndicates and "alliances"—by one or other of which is to be explained the perpetual inequality in the profits of contemporary industry, and the heaping up of fortunes in particular trades. If it were not for this deliberate erection of dykes and bulwarks we should find, in all the old-established industries, every manufacturer and trader making only the bare minimum of profit, without which he would not be induced to engage in business at all, and, we may add, every wage-earner reduced to bare subsistence wages, below which he could not continue to exist. But instead of this equality in constraint, with its implication of equality in minimum remuneration, industrial life presents, and has for over two centuries always presented, a spectacle of extreme inequality, alike between classes, trades, and individuals.

THE INDUSTRIAL CONFLICT¹ADAM SMITH²

Adam Smith here describes the conflict between workers and their employers, a conflict intensified by the collective action of both masters and workmen.

What are the common wages of labour, depends every where upon the contract usually made between two parties, whose interests are by no means the same. The workmen desire to get as much, the masters to give as little as possible. The former are disposed to combine in order to raise, the latter in order to lower the wages of labour.

It is not, however, difficult to foresee which of the two parties must, upon all ordinary occasions, have the advantage in the dispute, and force the other into a compliance with their terms. The masters, being fewer in number, can combine much more easily; and the law, besides, authorises, or at least does not prohibit their combinations, while it prohibits those of the workmen. We have no acts of parliament against combining to lower the price of work; but many against combining to raise it. In all such disputes the masters can hold out much longer. A landlord, a farmer, a master manufacturer, or merchant, though they did not employ a single workman, could generally live a year or two upon the stock which they have already acquired. Many workmen could not subsist a week, few could subsist a month, and scarce any a year without employment. In the long-run the workman may be as necessary to his master as his master is to him, but the necessity is not so immediate.

We rarely hear, it has been said, of the combinations of masters, though frequently of those of workmen. But whoever imagines, upon this account, that masters rarely combine, is as ignorant of the world as of the subject. Masters are always and every where in a sort of tacit, but constant and uniform combination, not to raise the wages

¹ This selection is reprinted from Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, 1776, Book I, Chapter 8.

² Adam Smith (1723–1790) was sometime professor of logic and later moral philosophy in the University of Glasgow, and finally commissioner of customs at Edinburgh. He is regarded as the founder of the Classical school of economics.

of labour above their actual rate. To violate this combination is every where a most unpopular action, and a sort of reproach to a master among his neighbours and equals. We seldom, indeed, hear of this combination, because it is the usual, and one may say, the natural state of things which nobody ever hears of. Masters too sometimes enter into particular combinations to sink the wages of labour even below this rate. These are always conducted with the utmost silence and secrecy, till the moment of execution, and when the workmen yield, as they sometimes do, without resistance, though severely felt by them, they are never heard of by other people. Such combinations, however, are frequently resisted by a contrary defensive combination of the workmen; who sometimes too, without any provocation of this kind, combine of their own accord to raise the price of their labour. Their usual pretences are, sometimes the high price of provisions; sometimes the great profit which their masters make by their work. But whether their combinations be offensive or defensive, they are always abundantly heard of. In order to bring the point to a speedy decision, they have always recourse to the loudest clamour, and sometimes to the most shocking violence and outrage. They are desperate, and act with the folly and extravagance of desperate men, who must either starve, or frighten their masters into an immediate compliance with their demands. The masters upon these occasions are just as clamorous upon the other side, and never cease to call aloud for the assistance of the civil magistrate, and the rigorous execution of those laws which have been enacted with so much severity against the combinations of servants, labourers, and journeymen. The workmen, accordingly, very seldom derive any advantage from the violence of those tumultuous combinations, which, partly from the interposition of the civil magistrate, partly from the superior steadiness of the masters, partly from the necessity which the greater part of the workmen are under of submitting for the sake of present subsistence, generally end in nothing, but the punishment or ruin of the ringleaders.

MUTUAL SURVIVAL IN THE INDUSTRIAL CONFLICT¹

E. WIGHT BAKKE²

Professor Bakke here argues for tolerance and understanding on the part of unions and management toward each other's goals as the only hope for the mutual survival of both under a capitalistic system.

During the last ten years millions of workers joined unions for the first time, thousands of them were elected to offices for which they had little training, and thousands of employers had to readjust their operations to make a place for unions. Even employers and labor leaders who were old hands at collective bargaining had never operated on such a broad front. Making collective bargaining work was a task of staggering proportions. It was not only that people had to learn how to negotiate. The difficulty went deeper than that. The negotiators didn't really understand why the other party was compelled to act as he did. Labor leaders didn't always understand the job of management, and management didn't always understand the job of labor leaders. Even when they did, the people down the line in the organization had little conception of the practical problems, the responsibilities, the traditional codes and practices, the convictions which had been developed by each group in the school of hard knocks in which they had taken their training.

Both knew that they had to learn to live and work together. They realized that the industrial warfare which preceded widespread collective bargaining had left a lot of bitterness and distrust on both sides. But they hoped that such feelings would be reduced when they got better acquainted and went to work on common problems. The difficulties that have arisen, however, are making many of them wonder whether they were not over-optimistic. The problems seem to be on the increase, not on the wane.

¹ This selection is reprinted by permission of the publishers from E. Wight Bakke, *Mutual Survival: The Goal of Unions and Management*, New Haven: Labor Management Center, 1946, pages 1-14, 17-18.

² Edward Wight Bakke (1903-) is now Sterling Professor of Economics and Director of the Labor Management Center in Yale University.

Last fall I went to nine major industrial centers and interviewed about sixty leaders in management and sixty leaders in the unions. I asked each of them what their chief difficulties were in dealing with the other. I tried to see through their answers and learn how each thought of his job. What were management's convictions about workable industrial relations? What were the union leaders' convictions about the basic nature of unionism? Why were these convictions what they were? How were they rooted in the job each had to do in order to survive?

I could not avoid a major conclusion. At the basis of most specific difficulties reported was the fact that both management and union leaders were expecting the other to behave in a way which each believed was impossible if they were to survive. Each was expecting peace on terms consistent with his own sovereignty. Let me be more specific. Management anticipated peace when the unions became the kind of organizations which fitted in with management's conception of the principles of workable industrial relations. Union leaders expected peace when management accepted and bargained in good faith with unions as they were in their essential characteristics. Both were willing that their tactics and strategies should change, but not the principles of sound management on the one hand or the principles of effective unionism on the other. That was a natural reaction because those principles on both sides had grown out of experience. They were the end products of trial and error. Men knew their jobs, their responsibilities, and the rewards they could expect if they operated that way. It was a stubborn reaction because men identified the survival of their organizations with the maintenance of those principles.

The plain fact is that management's convictions about sound management and the union leaders' convictions about effective unionism don't fit together at important points. Someone is going to have to modify his convictions enough to make workable mutual relations possible unless we want to face a struggle for dominance. It is not my purpose to suggest whether one or the other or both must give way. My simple objective is to lay those two sets of convictions side by side, to demonstrate the basic nature of the conflict between them, and to indicate the prospects for the reduction of that conflict.

Management Guideposts.

What is management's idea of workable industrial relations?

Briefly summarized, the points that stand out, almost without exception, in management's discussion of its problems are these:

Industrial relations are primarily and basically a matter of relations between management and employees, its own employees.

The first objective of industrial relations, like that of every function of management, is the economic welfare of the particular company.

Industrial relations arrangements must leave unimpaired management's prerogatives and freedom essential to the meeting of management's responsibilities.

All parties to industrial relations should be business-like and responsible.

These are the guideposts by which management determines whether it is on the road of sound industrial relations. They believe that if the unions will stay on that road, collective bargaining can be made to work. Now if the convictions of labor leaders about the essential nature of unionism turned out to be an accurate reflection of what unions have to be in order to survive, could they follow that road? That is the question I want to raise.

Labor Is "Our Men"

Look at management guidepost number one: Industrial relations are relations between a particular management and its own employees. Labor is "our men," not workers in general, not members of the union, not "organized labor." The union has a legitimate function on the basis of this principle only as the representative of, or spokesman for, "our men" and as a medium of communication with them.

Two features of unionism are incompatible with this management position. The first is that the union normally represents members in many companies throughout the industry or occupation. Every expansion of the union into new territory increases its task of representing, and maintaining group solidarity among, all workers in its jurisdiction. More and more, unions will be guided by that fact and not merely by their responsibility as spokesmen for the employees of a particular company.

In the process of doing this the second characteristic of unions becomes clear. They develop an institutional life of their own beyond the lives of individual members. A basic objective of that development is strength and power and prestige of the union as such. Internal conflicts must be ironed out. The membership must be bound to-

gether by a common philosophy and achievement. Power of many sorts has to be acquired. Protection against competing unions must be sought. A strong internal government and leadership must be developed. Faced with such problems, the union officers cannot come to the bargaining table merely as spokesmen for the employees of a single company. Every demand, every counter-proposal, every compromise, must be measured against the need for survival and growth of the union itself. Even the degree to which the clearly expressed wishes of the employees themselves can be followed by union leadership must face that test.

Unions will never fit completely into this first principle of management's conception of industrial relations. With unions in the picture, the issues in industrial relations will never be reducible solely to matters affecting the welfare of "our men." Management would abdicate from a major role if it did not continuously insist on referring adjustments to that standard. Moreover, the unions cannot afford to forget their own primary interest in representing the interests of employees of particular firms; for the satisfaction of those interests is the foundation upon which their reputation for service must be built. But union leaders are convinced that even service to local groups is not a product merely of presenting persuasively to local management the expressed wishes of local groups. It is a product of the ability to back their arguments with a power broadly and firmly rooted in a supporting membership throughout the industry or occupation, and in the organizational strength of the union itself.

Objective: A Profitable and Efficient Enterprise

The second management guidepost points to the objective of industrial relations. The objective, like that of every function of management, is the profitable operation of the particular company. The management of industrial relations, no less than the management of financing, production, or marketing must add up to an efficient and profitable enterprise.

Any manager, whatever his philosophy or degree of benevolence, will "get tough" when the productiveness and profitability of his own firm starts going down. The job for which he is immediately rewarded or punished is promoting the welfare, not of the world, not of the national economy, not of the industry, but of his own company. This does not mean that he is unconcerned about these larger matters. It simply means, since industrial relations are one of the sev-

eral problems of the enterprise for which he is responsible, that his dominant interest is in their impact upon his own enterprise.

Now a union in representing a broad membership and in maintaining its own existence necessarily raises issues which extend far beyond the particular problems of the particular company. The welfare of the entire membership and the strength of the union as such are seldom dependent solely upon what happens to any particular firm.

When the union demands a guarantee of exclusive or even continuing membership, or the check-off, in order to strengthen itself, many employers have said, "If you can sell yourself to our men, you can become strong. But that is your problem, not ours."

The union frequently argues wage possibilities in terms of rates of other firms and industries and localities whose internal problems are considerably different from those of the particular company involved. Sometimes they demand industry-wide terms. They raise the issues of aggregate purchasing power, full employment, human rights, the American standard of living. The management which is preoccupied with the internal problems and structure of its own company is likely to say, "What does that have to do with my problem?"

The conflict between management's idea that industrial relations are primarily a part of the operations of an individual company, and the tendency on the part of unions to introduce considerations which are beyond the effective control of a particular management, is not an insurmountable barrier to effective collective bargaining. Unions can expect few improvements in the material welfare for the employees of inefficient or unprofitable firms. Water isn't pumped from a dry well. Moreover, prominent management leaders are constantly urging employers to expand their interest in and concern for many of the problems which the union injects into the bargaining. To the extent that the economy and society become more complex, the welfare of the whole and that of the individual firm are bound more closely together.

Misunderstanding between the leaders of labor and management can, however, be reduced if labor leaders are aware of the fact that management has to put the effectiveness of its own operations first, and in some cases to reject as irrelevant the union's standards of comparison and its own needs for survival; and if leaders of management recognize the compulsion upon unions to chart their course by reference to such considerations. For while they may appear irrele-

vant from the point of view of a particular management, they are often exceedingly relevant from the point of view of the strength and power of the union and the interests of the workers whom the union represents.

Management Freedom

The principle written on the third management guidepost is carved deeply. It is this. Arrangements in the field of industrial relations must leave unimpaired management's prerogatives and freedoms essential to the meeting of management's responsibilities.

It is natural, and indeed necessary, for management to make this point clear. It is their claim of the right to survive. "Freedom," says management, "must be equal to responsibility." That is particularly understandable in view of the traditional freedom possessed by management to follow its own inclinations and wisdom with respect to obtaining, organizing, and directing a working force. As long as management practice and policy made it possible within the law to obtain and hold a working force with which it could produce and market a profitable product, little restriction was placed upon managerial discretion. Law, the decisions of customers, and pressure from fellow managers were the chief external restrictions. Collective bargaining, however, introduced a host of additional impediments to free action. Almost all functions of management, even those which are not concerned with the direction of workers, have become the subject of trade agreements or have been affected in important ways by such agreements.

A large part of management irritation with this development arises from specific restrictions on such items as discipline, hiring, transfers, work assignments, promotions and demotions, layoffs, the establishment and administration of work schedules and production quotas, organizational and technological innovations, the setting up and administration of wage systems, and like matters. Particularly irritating to many managements is the denial of their freedom to reward or punish individual workers in accordance with management's estimate of their individual merit and promise. Even in cases in which satisfactory working agreements have been made on such issues, management is disturbed by delays and restrictions upon quick decisions considered essential in the operations of the company. Beyond the specific restrictions involved, however, is the anxiety felt by many managers about the future; uncertainty as to where this

process will end; a fear that it will eventually culminate in such stringent impairment of management's freedom that it will not be able to do its job satisfactorily.

Union Regulation

I have found no indication among labor leaders that they want to run the business or that they have a conscious plan to share with management the control of all features of the enterprise. But there are two features of unionism which promote tendencies which might seem to move step by step in this direction.

A union is an employer-regulating device. It seeks to regulate the discretion of employers, as one union leader said, "at every point where his action affects the welfare of the men." Now those points cover a broad area. In one sense there is not a single managerial function which does not fall within that area. Where will the process stop? Where can it stop if the union is to fulfill its basic objective no clear cut definition of the boundaries of this area. I doubt, on the of regulating collectively all those industrial policies and practices which affect the welfare of the men? Certainly, union leaders have basis of responses from management to my questions, whether any representative group of managers could agree upon precise boundaries.

The second feature of unionism which inevitably restricts managerial freedom is this. The union is a device to reduce or eliminate competition among workers by establishing uniform rules and standards and compelling individual workers to conform to them. Putting it differently, the union purpose and policy is to eliminate individual bargaining. Union leaders believe this is an essential principle of unionism and collective bargaining. Unless a union can persuade or compel men to say, "On these terms and no others will we accept employment," it has left the door open to just that competition among workers which it was set up to eliminate. The bargaining power of the group as a whole is destroyed. The essence of union strength is a solid front on the conditions and terms of employment.

Freedom and Regulation

How far will this limitation of management freedom go? Is it an inevitable trend which will not be brought to a halt, short of placing management in a strait-jacket bound by which it cannot discharge its responsibilities, let alone make progress? It is hard for

many employers to be optimistic about the outlook. Let me summarize several suggestions made by a number of labor and management leaders who have devised workable arrangements in this matter.

The end of this conflict between management freedom and union regulation is not in sight. But one thing is clear. Management and union leaders who have made some progress toward a solution haven't done so by arguing in terms of management "prerogatives," union "rights" and workers "interests." They worked on a less abstract level. They dealt with specific and practical definitions of the points at which management had to retain absolute control and the points at which it could share control. They focused their attention on the practical job to be done. Was joint operation or a division of labor the best way to do it? And they were each willing to resolve any conflict by an arrangement which would meet the practical, if not the abstract, needs of the other.

The leaders of the labor movement in America, with the exception of communists, are not guided by a definite philosophy on this point. They are opportunistic and pragmatic in their policy and practice. How far they go is guided by practical needs, not by any revolutionary philosophy.

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Mutual Interests

Union leaders are acting in accordance with the basic principles of unionism in seeking to impose rules on management and to reduce competition among workers. The process itself and not its end result absorbs many of them at the moment. That is natural, particularly in the early stages of organization. But thoughtful labor leaders tell me that the time has arrived for a serious estimate of the effects of that end result upon management's ability to do its job. It is only common sense, say these leaders, if the unions expect management to be interested in the effect of its action on building effective unions, unions in turn should demonstrate an intelligent interest in the survival requirements of efficient management.

This conflict promises to be one of the most troublesome in the whole field of labor and management relations. It is particularly so because fundamental principles and survival needs are involved on both sides. Industrial peace and workable collective bargaining will depend greatly upon whether both parties can reconcile their principles on this score. Can they look upon their convictions not as

absolute and eternal but as modifiable in the interests of workable arrangements, permitting each to survive and get on with his work? Management and labor leaders alike will have to test their actions by this question, "If I do this or insist on this arrangement, will it be possible for the other fellow to do his job well?" How well each can do his own job depends on how well the other fellow can do his.

Business-like Responsibility

The final point in management's conviction about the essentials of industrial relations is that all parties should be business-like and responsible. Much of what management says about union responsibility is another way of expressing their convictions that unions, in their dealings with management, should be business-like. This, they insist, is a reasonable expectancy. But its realization is not as simple as it sounds. I think it is well to recognize that management's definition of "business-like" and "responsibility" grows out of its own experience in doing business; that what is meant is "following the rules of business." This is no place for an extended dissertation on these rules but certain of the more important of them should be recalled. What are they?

First of all, parties to a business arrangement should be free to accept or reject any offer or proposal on the basis of their interpretation of the benefit of such action to them. There should be no compulsion upon them to do otherwise. There is no place, at least in the theory of free business competition, for duress exerted by one party upon another. In the second place, all affairs should be conducted upon the basis of reasonable and orderly procedures which are understood and accepted by both parties. In the third place, the bargains made through these processes should be reducible to definite contracts equally binding upon both parties. In the fourth place, those who make the contracts should have the ability to deliver and to hold any parties for whom they are agents to the arrangements made. In the fifth place, if they are not able to deliver, redress should be available through agreed upon penalties voluntarily accepted and, if not, enforced by the courts.

Source of Business Code

Where did these rules come from? Their source is in business experience. They are the rules which embody the wisdom of that experience in dealings between business men. What I would like to

suggest is that the business man's definition of business-like conduct and responsible conduct is that which he has found satisfactory in governing the relations between manufacturing concerns, banks, insurance companies, dealers, brokers, and the like. People who manage such institutions are motivated and guided by primarily business considerations, those of economic gain or loss. Their code of conduct is a response to that fact, although it may also be an excellent code of conduct from a moral and from a practical point of view.

Moreover, because business is so important a part of our common life, such rules are pretty generally applied to all human relations. In a business civilization the code of business dealing tends to be imposed on every one. I am not suggesting that it should be otherwise, particularly when people are making business deals. Persons who are not primarily business men, however, and institutions which are not solely business organizations, have non-business problems. Sometimes what they have to do can't be done by following the rules of business. They develop a code of their own which doesn't always jibe with the business man's code. If the business man has to do business with such people or institutions, he is naturally exasperated. But a practical solution is more nearly possible if he understands why the other behaves as he does.

Are Unions Business Concerns?

Now, suppose a union turned out to be not primarily or exclusively a business concern—what then? Would its leaders feel as thoroughly committed to the rules of business?

Let me say immediately that there is a large element in the function of the union which is definable as business operations. A union is in part a business institution, but it has other features which keep it from being purely a business organization. Let me cite a few of these characteristics which are prominent in union leaders' conceptions of unionism, and which, when added together, raise a serious question as to whether unions will ever be guided solely by the code of business operations.

A union is a part of a working class *movement*. A movement is not a business. To the degree that workers are thoroughly integrated with it, they are bound by psychological ties of loyalty, not only to a particular union but to the movement with its traditions, folklore, and symbols. . . . A movement is not a business, although it may

have business functions to perform. Loyalty to this movement on the part of a significant nucleus of union men will very frequently cause them to set aside purely business considerations and to adopt tactics which are anything but business-like.

Again, a union is a pressure organization originating in the desire on the part of a group of people with relatively little power to influence the action of a group with relatively more power. The words "struggle" and "fight" and "battle" and "crusade" are not merely a part of the vocabulary of union organizers. They are symbols of the conception which these men hold of their own task, symbols made vivid by their life experience. The tactics and policies of today are molded by the experiences of yesterday.

Furthermore a union is a device for continuously changing the balance of fundamental economic rights and rewards in favor of workers. A business is a device for obtaining economic advantages within the framework of established rights. But it is one of the major functions of unions to alter the balance of these rights and rewards as between employers and workers. The changing of fundamental rights, at best, is more of a political than a business procedure. In many cases, its tactics point more in the direction of warfare than in the direction of trade.

Finally a union is a political institution in its internal structure and procedures. The solidarity of its participants is affected, not by the business-like procedures of hiring and firing, the giving and withholding of economic rewards, but by the techniques well known to political leaders. . . .

If it is understood that unions are, internally, political organizations, then much that is referred to as unbusiness-like or irresponsible conduct may be set down as the behaviour of a political institution which has not yet solidified and regularized its own structure or become adapted to the task at hand. I can imagine, for instance, that if a large city were to be run by the methods of town meeting democracy, the confusion and ineptness and inadequacy of the actions taken might conceivably be labelled as irresponsible by those accustomed to a city-manager form of government. There is no *democratic* short cut to the development of well integrated and disciplined political institutions.

Basis of Workable Arrangements

These features of unionism retard, if they do not make impossible,

the development of unions completely responsive to the principle of business-like dealings and responsibility so important in management's conception of industrial relations. They are not cited in order to demonstrate an ultimate incompatibility between unions and this conception, but to indicate the character of the problem faced.

It is a difficult problem, but I have met men in unions and in management who think it is not insurmountable. They are living with it and making some progress.

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The Issue: Mutual Survival

In conclusion I would like to make two points clear. I have made no judgment about what is right and what is wrong, either in management's convictions about the essentials of industrial relations or in the convictions held by union leaders about the essentials of unionism. I don't know what is right or wrong. But I am sure of one thing, nothing is right which won't work; and arrangements that work are going to have to be reconciled with these convictions and survival needs on both sides. Unless methods are adapted to such realities, we shall presently find ourselves repeating the words of the March Hare in *Alice in Wonderland*. You recall he had tried to fix the Mad Hatter's watch with butter. When his method did not work, he could only express his bewilderment in these words, "And it was the *best* butter too, the *best* butter."

In the second place I have offered no solution for reconciling those convictions. That solution will have to be hammered out by practical men in the light of the whole set of problems they face. I don't know all those problems. I have never met a payroll for more than 16 people and I have never organized a union. Every suggestion I have made has been relayed from practical men of experience on whose shoulders rests the responsibility for practical action.

Both management and labor leaders will be better equipped for such practical action, however, if they know thoroughly the kind of a job and responsibilities faced by the other, and his convictions about what is required if he and his organization are to survive. Men will fight when they believe their survival is threatened. The first task of life is to live. I am convinced that the great majority of employers and labor leaders alike are not out to "bust" or "hamstring" or take over the other. But they can do that without intending to do so by fighting for their own survival in ways which endanger the survival

of the other. The end result will be the overwhelming of both free management and free unions. The chain of events is too clear to miss. If either union leaders or management expect, or try to force, the other to be what they honestly believe they cannot be and survive, they will arouse the fighting opposition of the other, bring out the very belligerent and stubborn characteristics which make peace impossible. If two such giants as organized labor and organized management engage in a struggle for dominance within the highly delicate mechanism of the American economy, neither can win and Democracy is bound to lose. They will all go down together in the resulting chaos or in the regimentation which will arise from public demand to avoid chaos. Free unions, free management, free enterprise, and a free society will survive or go under together.

Mutual survival, not separate survival! That is our common aim. If we keep it steadily before us we can avoid a fanatical struggle for dominance which can never be won within a Democracy.

CHAPTER 17

The Rights of Labor

COLLECTIVE BARGAINING¹

SELIG PERLMAN²

Professor Perlman here analyzes collective bargaining in its historical setting, showing why labor insists on this method of controlling scarce job opportunities.

Collective bargaining is not just a means of raising wages and improving conditions of employment. Nor is it merely democratic government in industry. It is above all a technique whereby an inferior social class or group carries on a never slackening pressure for a bigger share in the social sovereignty as well as for more welfare, security, and liberty for its individual members. As such it is not confined to a single arena, the industrial one, where employers and labor unions meet directly, but manifests itself equally in politics, legislation, court litigation, government administration, religion, education, and propaganda. Nor is collective bargaining only a phenomenon of modern society. On the contrary, its clearest and most comprehensive manifestation was shown by the urban communities in the Middle Ages—the boroughs and the guilds in the struggle against feudal lords.

Collective bargaining as a technique of the rise of a new class is quite different from the class struggle of the Marxians. It is nominalist instead of realist. It is pragmatic and concrete instead of idealist and abstract. It is much less concerned with algebraic formulae summing up basic economic trends than with the problems of building discipline in organization and of training leadership. It derives its emo-

¹ This selection is reprinted by kind permission of the publishers and the author from Selig Perlman, "The Principle of Collective Bargaining," *The Annals of the American Academy of Political and Social Science*, Volume 184, March, 1936, pages 154-160.

² Selig Perlman (1888-) is now professor of economics in the University of Wisconsin.

tional impetus not from the desire to displace or "abolish" the "old ruling class," but from the wish to bring one's own class abreast of the superior class; to gain equal rights as a class and equal consideration from the members of that class with the members of that other class; to acquire an exclusive jurisdiction in that sphere where the most immediate interests, both material and spiritual, are determined, and a shared jurisdiction with the older class or classes in all the other spheres. . . .

GUILDS AND UNIONS COMPARED

Unionism, often distinguished from the standpoint of the intellectual as business unionism, uplift unionism, and revolutionary unionism, is, at bottom, labor's instrument for collective bargaining in the wider sense of the term, namely, to effect a rise to a fuller recognition in every sphere of social activity.

While it is not the lineal successor of the guilds, unionism shares with the latter the problems of establishing discipline in its own ranks and of obtaining recognition. And animated by the identical psychology of the scarcity of economic opportunity—job opportunity in this instance, not market opportunity—unionism is equally bent upon extending its control over the sum total of extant opportunity, in other words upon obtaining job control. Just as the guild owned its market territory, so the union considers itself the sole owner of its job territory; and, as with the guild, the union's guiding objective is administration of its job territory upon a principle approaching communism of opportunity, to give each member, as, for instance, through the rule of the equal turn in the coal mines, a reasonable chance to earn a livelihood. This is coupled with the protection of the individual in his own particular opportunity holding, his job, and is frequently combined with seniority preference.

Since the union cannot prevent contact between its individual members and the employer, in the manner in which the guild prevented contact of its members and the lord, it does the next best thing and prevents *individual bargaining* by enforcing union conditions of employment, the union's rules of occupancy and tenure of the job opportunity. But wherever possible, the union tries to be the unquestioned administrator of the job opportunities, as in union print shops, where the union sits alone in judgment over the foreman who has discharged an employee, and confines its bargains with the employer to wages and hours.

ATTITUDES OF PUBLIC AUTHORITY

The employer, however, is only one of the powers with whom the union has to make terms. Public authority is the other one, and during crucial stages, even the more important of the two. Generally speaking, the attitude of the public authority towards labor's collective bargaining has passed through the stages of suppression, grudging toleration, benevolent toleration, promotion, and (lately in countries ruled by dictatorship) absorption.

Suppression

The stage of suppression existed in England prior to 1824. As the mercantilist state assumed the obligation to find for labor regular employment at wages adequate for its customary though low standard of living, the conclusion seemed logical and unavoidable that the trade union form of self-help was unnecessary and contrary to law. The flaw in the logic was disclosed with time, when the protective portion of the Elizabethan labor code had fallen into desuetude, while the prohibitive portion remained. . . .

Grudging Toleration

The next stage, that of grudging toleration, lasted in England from 1825 to 1875, in Germany to the fall of the monarchy or possibly only to the Auxiliary Labor Law of 1916, and in the United States, in some regards, has gone on almost to the present. In this stage the union is no longer illegal per se, but in effect can remain legal only on condition that it is satisfied with a state of animated suspension. . . .

Benevolent Toleration

Benevolent toleration showed in the sweeping away of the charge of criminal conspiracy against unions, in their right to obtain court protection for their funds against dishonest officials, and in the privilege of legal invisibility when the employer brought them into court to levy for strike damages upon their treasuries. For this privilege the judges and the legal profession have never forgiven the trade unions, but the effort of the highest court in the British Taff Vale decision to treat them as corporate entities was nullified by the Trades Disputes Act of 1906, which also did away with the charge of civil conspiracy. . . .

Promotion

The stage of promotion arrives when public authority endeavors to make the union the sole spokesman for the individual wage earners. In Australia, where labor's collective bargaining takes place on the legal arena, as litigation before an industrial court, the individual worker has no standing before that court. Hence Australian labor is the best organized labor of all countries outside Soviet Russia. And under the Australian procedure the key customs of labor—the living wage and the standard wage, the eight-hour day, and preference to union men where the employer has shown discrimination—have been incorporated in the law of the land.

Promotion is also present when the government extends the terms of a collective bargain over the unorganized portion of an industry or trade. Finally, promotion operates where the law makes a special effort to insure the independence of the union from undue employer influence. . . .

In America the stage of promotion arrived with the New Deal, with an adumbration as regards railway labor and the "yellow-dog" contract in the two preceding administrations. Although the National Industrial Recovery Act and the National Labor Relations Act both failed to compel employers to conclude bargains with unions, they went beyond the mere freeing of the unions from their earlier legal shackles—acts characteristic of the stage of benevolent toleration—and attempted to shackle the employer as a would-be organizer of company unions.

Absorption

The stage of absorption or assimilation comes with political dictatorship, whether communist or fascist. Dictatorship excludes collective bargaining, both the direct kind and the indirect one, through legislation, politics, and propaganda. Under a dictatorship, unionism ceases to be the true expression of the labor group and becomes the mere creature of an outside power, either a communist intelligentsia or a middle-class fascist semi-intelligentsia. Under a dictatorship it is wholly immaterial whether unionism is compulsory or voluntary, or even whether it is limited to wage earners or admits employers. Therefore, forewarned of its fate under dictatorship, unionism is today the mainstay of democracy.

DEVELOPMENT OF LABOR STRATEGY

The stages in the evolution of the attitude of public authority towards labor's collective bargaining roughly accord with the stages in the development of labor strategy. The revolutionary stage coincides with the period of the unions' illegality and with the more intolerant portion of the stage of grudging toleration. Russian labor in 1904-1906 and 1917, British labor at the time of the Grand Consolidated Trades' Union and of the Chartist movement, German labor under the anti-socialist laws, and American labor in the eighties and nineties when the labor injunction made its début—amply demonstrate that revolutionary correlation. In Russia, due to the absence in her body politic of the centers of resistance which in the countries of the Western pattern had been built up in the course of their more organic developments, labor, molded by professional revolutionaries from among the intellectuals, won a complete victory virtually by default. With that victory, collective bargaining as defined here came to an end in Russia. Elsewhere, the onrush of revolutionary labor shattered itself against the defenses of the established order.

Thereupon labor, making the best of the arrived grudging toleration by public authority, turned to a strategy of trench warfare on innumerable craft fronts, and of pounding its way inch by inch into the employer's field of prerogative. This campaign of opportunistic pressure on the many economic fronts, by means of strikes and union working rules, was supplemented by an equally opportunistic tactic on the political, legislative, and propaganda fronts. It was during this stage of many small wars, wars without formal truces, that the physiognomy of job-conscious unionism took its definite and hard shape—a hard-hitting unionism capable of great endurance but aspiring towards no millennium, only towards recognition as a legitimate partner in industrial government.

INDUSTRIAL GOVERNMENT

In fact, industrial government is labor's outstanding contribution to capitalist society. In America it began in a large way with the agreement system, erected in 1898, between the United Mine Workers and the operators in the Central Competitive Field. That agreement system became a school in which labor taught the employers the art of peaceably sharing their market opportunity instead

of the former cutthroat competition. This was implemented through an elaborate wage rate structure aiming to equalize competitive costs notwithstanding geological and geographical inequalities.

The union, of course, was inspired by no philanthropy towards the employers. It merely felt that for the realization of its own objective of job conservation and job sharing, it was necessary that the operators as competitors be trained in economic good manners and sportsmanship. This industrial government of the mining industry disregarded the ideology of competitive capitalism, as well as the gospel of scientific management; it advanced the economic life of the weak and it increased the costs to the consumer. But it did so in the name of humanity to the producer, the job holder, and the operator alike.

In the agreement system in the men's clothing industry, established in Chicago in 1911 between Hart Schaffner and Marx and the union led by Sidney Hillman, industrial government avoided conflict with efficiency, and, in time, developed a governing apparatus which should be the delight of catholic-minded political scientists. In the industrial government under that agreement there are clearly discernible the legislative, executive, and judicial branches of government, and also the "administrative commission" which combines features of all three. The "constitution," elaborated by their own subsequent judicial interpretation, also contains a "bill of rights" safeguarding the employer, the employee, and the union. For instance, the employer is guaranteed against "stoppages"—economic "riots" as it were; the employee is protected by economic "habeas corpus" proceedings against the loss of his job either through discriminatory discharge or from technological change; and the union is upheld as a vigorous bargaining agency by the grant of "parliamentary immunity" to the "shop chairmen"—namely, protection from discharge except with the preliminary consent of the impartial "court"—and through union preference in employment. Under this agreement system, efficiency, or progress, far from being blocked, has been encouraged and since 1925 perhaps somewhat unduly so in this age of technological unemployment.

However, both varieties of industrial government, in bituminous coal and in men's clothing, require, for survival, an extension over each entire industry of the standards fixed by the collective bargain. And the implication, as far as the attitude of public authority is concerned, is that collective bargaining has entered into the stage of

promotion rather than that of mere toleration, however benevolent.

DANGERS OF PROMOTION

But such promotion holds its dangers, especially in this country with its labor movement unevenly developed and in many basic industries virtually lacking; for it is the rare governmental promoter of collective bargaining who will resist the temptation to try to impose his own views of what is rational and good for the labor movement.

In practice, of course, it is extremely difficult to draw the line between the genuine "organicism" of the labor movement, vital to its existence and vigor, and stubborn conservatism rooted in vested rights and selfishness. Especially in a time like the present, apparently a *Sturm und Drang* period in the American labor movement, union building from a blueprint, will seem to many a matter of public duty. For these the fate of Joseph II of Austria should hold a restraining lesson. Genuine reform, even in the labor movement, can come only from within.

THE ABUSE OF UNION POWER ¹

N.A.M.²

The NAM here points to some abuses of labor rights and union power such as (1) industry-wide collective bargaining, (2) the closed shop, and (3) the jurisdictional strike.

AMERICANS WON'T STAND FOR MONOPOLIES

. . . and it doesn't make any difference whether it's a government monopoly like those of Hitler and Mussolini—or a business monopoly like the industrial combines of the 1800's—or a labor monopoly like

¹ This selection is reprinted by kind permission of the publishers from the National Association of Manufacturers, *Americans Won't Stand for Monopolies*, 1946.

² The National Association of Manufacturers is an employer association which lists as its objectives "the promotion of industry and commerce, the improvement of employer-employee relations and the protection of individual liberties and rights of all."

those of John Llewellyn Lewis and James Caesar Petrillo—Americans don't like them.

They don't like anybody to have too much power. They don't like people who push other people around.

Business tried monopoly—and the people rose in righteous wrath and said: "We want competition. We don't like big trusts." The Sherman Anti-Trust Act was passed in 1890.

Yet, today, under legal blessings, another major group is practicing monopoly as a "way of life." The dictators of some large segments of organized labor haven't learned yet that a "public-be-damned" attitude won't work long in this country—whether it's legal or not.

Few people argue with employees' rights to organize and bargain collectively on questions of wages, hours and working conditions.

Few argue with employees' rights to strike, when after bargaining in good faith and failing to get together with their employers, they vote to do so by secret ballot.

- Few argue with local unions' rights to join together in national federations.

But what most people object to is:

A legal concentration of power so great that one man can call out all the employees in an entire industry—shutting off power, paralyzing the country, causing physical hardship for millions . . .

Not having the right to work without joining some particular union, whether or not they want to . . .

Not being able to get some goods because somewhere two unions are having a jurisdictional strike—fighting over who represents whom.

The majority of industrial employees, the majority of union members, don't believe in monopoly. Yet the federal laws on the books today actually promote union monopoly—federal laws and recent Supreme Court decisions (U. S. versus Hutcheson, 312 U.S. 219) like this—

So long as a union acts in its own self-interest . . . the licit and illicit under Section 20 (Clayton Anti-Trust Act) are not to be distinguished by any judgment regarding the wisdom or unwisdom, the rightness or wrongness, the selfishness or unselfishness, of the end of which the particular union activities are the means.

In other words, as long as it's for the union's self-interest, the sky's the limit—and the public can like it or lump it.

It does no good to get mad at Lewis or Petrillo or any other labor czar. They are merely the product of monopolistic "self-interest" labor laws.

It takes an unusual man to resist dictatorship when it's offered—dictatorship in the form of industry-wide bargaining, closed shop and secondary boycott.

MONOPOLY ON STRIKES

Philip Murray, unable to get the agreement he wanted from U. S. Steel, called on 750,000 steelworkers to strike in hundreds of companies and plants.

Before the strike was over, thousands of manufacturing plants depending on steel had to close down or curtail their operations. Hundreds of thousands of men were thrown out of work. And, even today, you probably don't have the car or refrigerator or kitchen gadget you want.

Such are some of the effects of "industry-wide bargaining"—the process whereby representatives of all the employees in an entire industry and representatives of the employers in an industry decide the fate of millions around a table somewhere.

For when "industry-wide bargaining" breaks down, we are deprived not only of the goods or services of one company, but of all the companies in the industry—and frequently of those of related industries. Remember the coal strikes, the steel strike, the maritime strike, the railroad strike?

We believe that it's just as harmful to the public for a union or unions representing the employees of two or more employers to take joint wage action or engage in other monopolistic practices as it is for two or more employers to take joint price action or engage in other monopolistic practices. The public invariably comes out on the short end.

Not only the public, but the workers take the rap under industry-wide bargaining monopoly—a milling machine operator at a small manufacturing plant, for instance.

He reads all about it in the newspapers—how the national head of his union and a representative of hundreds of companies employing members of his union are meeting in Washington. They're talk-

ing about big things—international trade, tariffs, material shortages, industry-wide problems—not about him and his problems.

Will he get a raise, he wonders, or will he get orders to strike again? He remembers the last time he was told to “hit the bricks,” even though there was no dispute with his own employer.

“Part of the national strategy,” they told him—but that didn’t pay the food bill for those months.

He wonders whether it wouldn’t be a lot better for the local union president who knows him—to sit down with the president of the company and thresh out local problems—really try to avoid a strike that does nobody any good.

Industry-wide bargaining—attempts to cover all sizes and conditions of plants with one agreement—is like making ready-made suits for a national market in one size.

It not only doesn’t work, but it tends to put monopolistic power into the hands of a few—labor leaders and business leaders.

Small business is shoved out of the market. New struggling businesses don’t have a chance. Competition, which should govern prices and quality and products, fades out of the picture.

Industry-wide bargaining means bigger business, bigger unions, and of course, bigger government.

And those who would have collectivism—state control—fascist or communist brand—love it.

MONOPOLY ON JOBS

In New York, every man who delivers newspapers is a member of a “closed shop” union—and one of the requirements for membership is that he be the “legitimate son” of another news deliveryman.

Maybe a humorous angle could be found in that example, but when millions of employees—74 percent of all the workers covered by collective bargaining agreements—must pay a tribute to the right organization to get or hold a job, that just isn’t funny, anymore.

And that, in a nutshell, is the closed shop—job monopoly.

In America, every employee has the right, and should maintain the right, to join a union if he wants to. It’s a right Hitler and Mussolini abolished as first steps in building their dictatorships—and Americans want none of that.

But, at the same time, they don’t think that a man should *have* to join a union if he doesn’t want to. A man’s individual freedom is

too important. (66 percent of the American people favor the open shop, according to a recent Gallup poll.)

Take, for example, the case in Duluth, Minnesota, recently. Clerks in a department store struck. Mrs. Esther Stellberg, a department head, and not a member of the union, stayed on the job.

Her husband, a member for 15 years of the milk drivers' union, was told his wife had to stop working. She refused. So the milk drivers' union fined MR. Stellberg \$1500. When he couldn't pay, it had him fired.

Monopoly control of jobs, through the closed shop, meant that Mr. Stellberg could be forced out through no fault of his own. And his is not an isolated example. For, under the closed shop, the number one requirement for the employee is to obey his union boss. His efficiency at his work, his ability and willingness to help make his business a success have become secondary.

But what about the citizens' stake?

It is through the closed shop (compulsory membership *before* employment) that Petrillo is able to force broadcasters and others to hire unnecessary musicians.

It is through the union shop (compulsory membership *after* employment) that Lewis is able to force miners to stop work when he flicks an eyebrow—twice last year.

It is through the closed shop that some unions have enforced featherbedding—stretching work—and other wasteful concessions from employers.

And, in every case, John Q. Citizen pays the bill for this job monopoly—in less goods, lower quality, higher prices.

SCRAMBLE FOR POWER

All three employees at a small paint plant in California refused to join a union. So the union put an outside picket at the plant—and union truck drivers refused to deliver supplies. The factory closed down until the workers paid their \$75 initiation fees.

A small sign manufacturer in Ohio had a collective bargaining election and the CIO was certified as the bargaining agent by the Government. But, in many leading cities, the signs couldn't be hung—because AFL unions, employed by contractors there, wouldn't touch them. One union refused to recognize the label of the other. And the company couldn't do a thing about it.

In New York, the International Brotherhood of Electrical

Workers built a tariff wall around the city. They prevented the installation of electrical equipment shipped in from outside the city, unless it was completely rewired and re-assembled by members of the local union. When Uncle Sam built a Marine Hospital at Staten Island, for instance, an out-of-the-city manufacturer was forced to pay \$7,000 to a local union manufacturer for unnecessary rewiring.

There's a two-bit phrase to cover these forms of union monopoly—"secondary boycott."

In jockeying for position, unions boycott products manufactured by non-union labor; they boycott products manufactured by another union; they boycott products manufactured by another local of the same international union to prevent competition in the local market.

Jurisdictional strikes—unions fighting each other for power within a plant while the employer stands helpless on the sidelines—have helped throw postwar production schedules into a cocked hat. And after the strikes are over, the employees are not one bit better off than they were before.

Meantime while employers and the government are tied up in legal knots, the people again pay the check in less goods, higher prices—without knowing how or why.

The stakes of union dictatorship are high—and there aren't many who hesitate about tramping on employees' heads and the customers' heads in their scramble for power.

WHERE WE STAND TODAY

The brave new postwar world—with plastic palaces and automatic orange juicers—hasn't materialized yet.

Instead, in 1946, the "year of decision," we were hit by a wave of industrial unrest—which kept the worker and the employer and the long-suffering public behind the eight-ball.

It's not too late to do something about industrial harmony.

We have the best workers, the most efficient machines, the most eager customers in the world. But somewhere along the line, we forgot there's a four-letter American word that mixes those elements into a constantly rising living standard.

That word is—WORK!

Our problems can be solved—but only through:

(1) Outlawing once and for all monopoly in unions—industry-wide bargaining, closed shop, secondary boycott—the same as we

outlawed business monopoly with the Sherman Anti-Trust Act. This is in the public interest.

(2) Figuring out our problems around a conference table—real collective bargaining (if the employees voluntarily choose to be represented by a union) at the plant or company level where the negotiators know what it's all about—not fighting it out on picket lines. This is in the public interest.

(3) Get what we want by producing—by WORKING for it—not by theorizing and loafing. This is in the public interest.

A free people beat down the threat of power-mad dictators in war.

A free people—free labor, free business, free customers—can insure a better tomorrow for all in peace.

FOR THE GOOD OF ALL

In the public interest, the Board of Directors of the National Association of Manufacturers, representing 16,000 employers, has evolved a program for industrial peace; a program that is fair to labor, fair to management, and above all, fair to the public which always foots the bills. Judge it yourself—

To develop sound and friendly relations with employees, to minimize the number and extent of industrial disputes, and to assure more and better goods at lower prices to more people, American employers should see that their policies encourage:

High wages based on high productivity, with incentives to encourage superior performance and output;

Working conditions that safeguard the health, dignity and self-respect of the individual employee;

Employment that is stabilized to as great a degree as possible, through intelligent direction of all the factors that are under management's control;

A spirit of cooperation between employees and the management, through explanation to employees of the policies, problems and the prospects of the company.

The right of employees to join or not to join a union should be protected by law. In exercising the right to organize in unions or the right not to organize, employees should be protected by law against coercion from any source.

When the collective bargaining relationship has been established, both employers and employees, quite aside from their legal obliga-

tions and rights, should work sincerely to make such bargaining effective. Collective bargaining should be free from the abuses which now destroy its benefits. It is believed that the abuses of collective bargaining will gradually disappear if both management and labor will adhere to the following principles:

1. The union as well as the employer should be obligated, by law, to bargain collectively in good faith, provided that a majority of the employees in the appropriate unit wish to be represented by the union.

2. The union as well as the employer should be obligated, by law, to adhere to the terms of collective bargaining agreements. Collective bargaining agreements should provide that disputes arising over the meaning or interpretation of a provision should be settled by peaceful procedures.

3. Monopolistic practices in restraint of trade are inherently contrary to the public interest, and should be prohibited to labor unions as well as to employers. It is just as contrary to the public interest for a union or unions representing the workers of two or more employers to take joint wage action or engage in other monopolistic practices as it is for two or more employers to take joint price action or engage in other monopolistic practices.

4. If a legitimate difference of opinion over wages, hours or working conditions cannot be reconciled through collective bargaining or mediation, employees should be free to strike where such strike is not in violation of an existing agreement. However, the protection of law should be extended to strikers only when the majority of employees in the bargaining unit, by secret ballot under impartial supervision, have voted for a strike in preference to acceptance of the latest offer of the employer. Employees and employers should both be protected in their right to express their respective positions.

5. No strike should have the protection of law if it involves issues which do not relate to wages, hours or working conditions, or demands which the employer is powerless to grant. Such issues and demands are involved in jurisdictional strikes, sympathy strikes, strikes against the government, strikes to force employers to ignore or violate the law, strikes to force recognition of an uncertified union, strikes to enforce featherbedding or other work restrictive demands, or secondary boycotts.

6. No individual should be deprived of his right to work at an

available job, nor should anybody be permitted to harm or injure the employee, or his family, or his property, at home, at work or elsewhere. Mass picketing and any other form of coercion or intimidation should be prohibited.

7. Employers should not be required to bargain collectively with foremen or other representatives of management.

8. No employee or prospective employee should be required to join or refrain from joining a union, or to maintain or withdraw his membership in a union, as a condition of employment. Compulsory union membership and interference with voluntary union membership both should be prohibited by law.

9. Biased laws and biased administration of laws have made a contribution to current difficulties, and should be replaced with impartial administration of improved laws primarily designed to advance the interests of the whole public while still safeguarding the rights of all workers. The preservation of free collective bargaining demands that government intervention in labor disputes be reduced to an absolute minimum. The full extent of government participation in labor disputes should be to make available competent and impartial conciliators.

Compulsory arbitration, in particular, is inconsistent with American ideals of individual freedom, and is bound to destroy genuine collective bargaining.

All labor and related legislation should be consistent with the principles set forth above. Any existing statutes that are in violation of such principles should be brought in accord with them through appropriate action by the Congress.

LABOR AND THE OPEN SHOP

FINLEY PETER DUNNE¹

Mr. Dooley here expresses skepticism concerning labor's rights in an open shop.

"What's all this that's in the papers about the open shop?" asked Mr. Hennessey.

"Why, don't ye know?" said Mr. Dooley. "Really, I'm surprised at yer ignorance, Hinnissey. What is th' open shop? Sure, 'tis where they kape the doors open to accommodate th' constant stream av min comin' in t' take jobs cheaper than th' min what has th' jobs. 'Tis like this, Hinnissey: Suppose wan av these free-born citizens is workin' in an open shop f'r th' princely wage av wan large iron dollar a day av tin hours. Along comes anither son-av-a-gun and he sez t' th' boss, 'Oi think oi could handle th' job nicely f'r ninety cints.'

"'Sure,' sez th' boss, and th' wan dollar man gets out into th' crool wurruled t' exercise his inalienable roights as a free-born American citizen an' scab on some other poor devil. An' so it goes on, Hinnissey. An' who gits th' benefit? Thru, it saves th' boss money, but he don't care no more f'r money thin he does f'r his right eye.

"It's all principle wid him. He hates t'see min robbed av their indipidence. They must have their indipidence, regardless av anything else."

"But," said Mr. Hennessey, "these open-shop min ye menshun say they are f'r unions if properly conducted."

"Shure," said Mr. Dooley, "if properly conducted. An' there we are; an' how would they have thim conducted? No strikes, no rules, no contracts, no scales, hardly iny wages an' dam few members."

¹ Finley Peter Dunne (1867-1936), author, journalist, and editor, was regarded by some as the Will Rogers of his day.

Legislative Control of Labor's Rights

THE HEART OF THE WAGNER ACT

U. S. CONGRESS¹

The following are excerpts from the (Wagner) National Labor Relations Act of 1935, generally considered by union people as the Magna Charta of American labor.

FINDINGS AND POLICY

SEC. 1. The denial by employers of the right of employees to organize and the refusal by employers to accept the procedure of collective bargaining lead to strikes and other forms of industrial strife or unrest, which have the intent or the necessary effect of burdening or obstructing commerce by (a) impairing the efficiency, safety, or operation of the instrumentalities of commerce; (b) obstructing the current of commerce; (c) materially affecting, restraining, or controlling the flow of raw materials or manufactured or processed goods from or into the channels of commerce, or the prices of such materials or goods in commerce; or (d) causing diminution of employment and wages in such volume as substantially to impair or disrupt the market for goods flowing from or into the channels of commerce.

The inequality of bargaining power between employees who do not possess full freedom of association or actual liberty of contract, and employers who are organized in the corporate or other forms of ownership association substantially burdens and affects the flow of commerce, and tends to aggravate recurrent business depressions, by depressing wage rates and the purchasing power of wage earners in industry and by preventing the stabilization of competitive wage rates and working conditions within and between industries.

Experience has proved that protection by law of the right of

¹ National Labor Relations Act of July 5, 1935, 74th Congress, 1st Session. *Statutes at Large of the U. S.*, Volume 49, Part I, Chapter 372, page 449.

employees to organize and bargain collectively safeguards commerce from injury, impairment, or interruption, and promotes the flow of commerce by removing certain recognized sources of industrial strife and unrest, by encouraging practices fundamental to the friendly adjustment of industrial disputes arising out of differences as to wages, hours, or other working conditions, and by restoring equality of bargaining power between employers and employees.

It is hereby declared to be the policy of the United States to eliminate the causes of certain substantial obstructions to the free flow of commerce and to mitigate and eliminate these obstructions when they have occurred by encouraging the practice and procedure of collective bargaining and by protecting the exercise by workers of full freedom of association, self-organization, and designation of representatives of their own choosing, for the purpose of negotiating the terms and conditions of their employment or other mutual aid or protection. . . .

NATIONAL LABOR RELATIONS BOARD

SEC. 3. (a) There is hereby created a board, to be known as the "National Labor Relations Board" (hereinafter referred to as the "Board"), which shall be composed of three members, who shall be appointed by the President, by and with the advice and consent of the Senate. . . .

RIGHTS OF EMPLOYEES

SEC. 7. Employees shall have the right of self-organization, to form, join, or assist labor organizations, to bargain collectively through representatives of their own choosing, and to engage in concerted activities, for the purpose of collective bargaining or other mutual aid or protection.

SEC. 8. It shall be an unfair labor practice for an employer—

(1) To interfere with, restrain, or coerce employees in the exercise of the rights guaranteed in section 7.

(2) To dominate or interfere with the formation or administration of any labor organization or contribute financial or other support to it: *Provided*, That subject to rules and regulations made and published by the Board . . . an employer shall not be prohibited from permitting employees to confer with him during working hours without loss of time or pay.

(3) By discrimination in regard to hire or tenure of employment

or any term or condition of employment to encourage or discourage membership in any labor organization. . . .

(4) To discharge or otherwise discriminate against an employee because he has filed charges or given testimony under this Act.

(5) To refuse to bargain collectively with the representatives of his employees. . . .

REPRESENTATIVES AND ELECTIONS

SEC. 9. (a) Representatives designated or selected for the purposes of collective bargaining by the majority of the employees in a unit appropriate for such purposes shall be the exclusive representatives of all the employees in such unit for the purposes of collective bargaining in respect to rates of pay, wages, hours of employment, or other conditions of employment: *Provided*, That any individual employee or a group of employees shall have the right at any time to present grievances to their employer.

(b) The Board shall decide in each case whether, in order to insure to employees the full benefit of their right to self-organization and to collective bargaining, and otherwise to effectuate the policies of this Act, the unit appropriate for the purposes of collective bargaining shall be the employer unit, craft unit, plant unit, or subdivision thereof.

(c) Whenever a question affecting commerce arises concerning the representation of employees, the Board may investigate such controversy and certify to the parties, in writing, the name or names of the representatives that have been designated or selected. In any such investigation, the Board shall provide for an appropriate hearing upon due notice, either in conjunction with a proceeding under section 10 or otherwise, and may take a secret ballot of employees, or utilize any other suitable method to ascertain such representatives. . . .

PREVENTION OF UNFAIR LABOR PRACTICES

SEC. 10. (a) The Board is empowered, as hereinafter provided, to prevent any person from engaging in any unfair labor practice (listed in section 8) affecting commerce. This power shall be exclusive, and shall not be affected by any other means of adjustment or prevention that has been or may be established by agreement, code, law, or otherwise. . . .

(b) If upon all the testimony taken the Board shall be of the opinion that any person named in the complaint has engaged in or is

engaging in any such unfair labor practice, then the Board shall state its findings of fact and shall issue and cause to be served on such person an order requiring such person to cease and desist from such unfair labor practice, and to take such affirmative action, including reinstatement of employees with or without back pay, as will effectuate the policies of this Act. Such order may further require such person to make reports from time to time showing the extent to which it has complied with the order. If upon all the testimony taken the Board shall be of the opinion that no person named in the complaint has engaged in or is engaging in any such unfair labor practice, then the Board shall state its findings of fact and shall issue an order dismissing the said complaint. . . .

(e) The Board shall have power to petition any circuit court of appeals of the United States . . . within any circuit or district, respectively, wherein the unfair labor practice in question occurred or wherein such person resides or transacts business, for the enforcement of such order and for appropriate temporary relief or restraining order, and shall certify and file in the court a transcript of the entire record in the proceeding, including the pleadings and testimony upon which such order was entered and the findings and order of the Board. Upon such filing, the court shall cause notice thereof to be served upon such person, and thereupon shall have jurisdiction of the proceeding and of the question determined therein, and shall have power to grant such temporary relief or restraining order as it deems just and proper, and to make and enter upon the pleadings, testimony, and proceedings set forth in such transcript a decree enforcing, modifying, and enforcing as so modified, or setting aside in whole or in part the order of the Board. . . .

(f) Any person aggrieved by a final order of the Board granting or denying in whole or in part the relief sought may obtain a review of such order in any circuit court of appeals of the United States in the circuit wherein the unfair labor practice in question was alleged to have been engaged in or wherein such person resides or transacts business, or in the Court of Appeals of the District of Columbia, by filing in such court a written petition praying that the order of the Board be modified or set aside. . . .

INVESTIGATORY POWERS

SEC. 11. For the purpose of all hearings and investigations, which,

in the opinion of the Board, are necessary and proper for the exercise of the powers vested in it by section 9 and section 10—

(1) The Board, or its duly authorized agents or agencies, shall at all reasonable times have access to, for the purpose of examination, and the right to copy any evidence of any person being investigated or proceeded against that relates to any matter under investigation or in question. Any member of the Board shall have power to issue subpoenas requiring the attendance and testimony of witnesses and the production of any evidence that relates to any matter under investigation or in question, before the Board, its member, agent, or agency conducting the hearing or investigation. . . .

(2) In case of contumacy or refusal to obey a subpoena issued to any person . . . and any failure to obey such order of the court may be punished by said court as a contempt thereof.

(3) No person shall be excused from attending and testifying or from producing books, records, correspondence, documents, or other evidence in obedience to the subpoena of the Board. . . .

SEC. 12. Any person who shall willfully resist, prevent, impede, or interfere with any member of the Board or any of its agents or agencies in the performance of duties pursuant to this Act shall be punished by a fine of not more than \$5,000 or by imprisonment for not more than one year, or both.

LIMITATIONS

SEC. 13. Nothing in this Act shall be construed so as to interfere with or impede or diminish in any way the right to strike. . . .

SEC. 15. If any provision of this Act, or the application of such provision to any person or circumstance, shall be held invalid, the remainder of this Act, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby.

SEC. 16. This Act may be cited as the "National Labor Relations Act."

Approved, July 5, 1935.

THE HEART OF THE TAFT-HARTLEY ACT

U. S. CONGRESS¹

The following are excerpts from the Taft-Hartley Act, passed by Congress in June, 1947, to curb some aspects of union power.

SHORT TITLE AND DECLARATION OF POLICY

... This Act may be cited as the "Labor Management Relations Act, 1947."

... Industrial strife which interferes with the normal flow of commerce and with the full production of articles and commodities for commerce, can be avoided or substantially minimized if employers, employees, and labor organizations each recognize under law one another's legitimate rights in their relations with each other and above all recognize under law that neither party has any right in its relations with any other to engage in acts or practices which jeopardize the public health, safety, or interest.

It is the purpose and policy of this Act, in order to promote the full flow of commerce, to prescribe the legitimate rights of both employees and employers in their relations affecting commerce, to provide orderly and peaceful procedures for preventing the interference by either with the legitimate rights of the other, to protect the rights of individual employees in their relations with labor organizations whose activities affect commerce, to define and proscribe practices on the part of labor and management which affect commerce and are inimical to the general welfare, and to protect the rights of the public in connection with labor disputes affecting commerce.

TITLE I. AMENDMENT OF NATIONAL LABOR RELATIONS ACT

... The National Labor Relations Act is hereby amended to read as follows: . . .

"Unfair Labor Practices

... It shall be an unfair labor practice for a labor organization or its agents—

¹ Taft-Hartley Act of June 23, 1947, 80th Congress, 1st Session. *Statutes at Large of the U. S.*, Volume 61, Part I, Chapter 120.

“(1) to restrain or coerce (A) employees in the exercise of the rights guaranteed in section 7: *Provided*, That this paragraph shall not impair the right of a labor organization to prescribe its own rules with respect to the acquisition or retention of membership therein; or (B) an employer in the selection of his representatives for the purposes of collective bargaining or the adjustment of grievances;

“(2) to cause or attempt to cause an employer to discriminate against an employee . . . or to discriminate against an employee with respect to whom membership in such organization has been denied or terminated on some ground other than his failure to tender the periodic dues and the initiation fees uniformly required as a condition of acquiring or retaining membership;

“(3) to refuse to bargain collectively with an employer, provided it is the representative of his employees. . . .

“(4) to engage in, or to induce or encourage the employees of any employer to engage in, a strike or a concerted refusal in the course of their employment to use, manufacture, process, transport, or otherwise handle or work on any goods, articles, materials, or commodities or to perform any services, where an object thereof is: (A) forcing or requiring any employer or self-employed person to join any labor or employer organization or any employer or other person to cease using, selling, handling, transporting, or otherwise dealing in the products of any other producer, processor, or manufacturer, or to cease doing business with any other person; (B) forcing or requiring any other employer to recognize or bargain with a labor organization as the representative of his employees unless such labor organization has been certified as the representative of such employees under the provisions of section 9; (C) forcing or requiring any employer to recognize or bargain with a particular labor organization as the representative of his employees if another labor organization has been certified as the representative of such employees under the provisions of section 9; (D) forcing or requiring any employer to assign particular work to employees in a particular labor organization or in a particular trade, craft, or class rather than to employees in another labor organization or in another trade, craft, or class, unless such employer is failing to conform to an order or certification of the Board determining the bargaining representative for employees performing such work . . .

“(5) to require of employees covered by an agreement . . . the payment, as a condition precedent to becoming a member of such

organization, of a fee in an amount which the Board finds excessive or discriminatory under all the circumstances. In making such a finding, the Board shall consider, among other relevant factors, the practices and customs of labor organizations in the particular industry, and the wages currently paid to the employees affected; and

“(6) to cause or attempt to cause an employer to pay or deliver or agree to pay or deliver any money or other thing of value, in the nature of an exaction, for services which are not performed or not to be performed.

“(c) The expressing of any views, argument, or opinion, or the dissemination thereof, whether in written, printed, graphic, or visual form, shall not constitute or be evidence of an unfair labor practice under any of the provisions of this Act, if such expression contains no threat of reprisal or force or promise of benefit.

“(d) For the purposes of this section, to bargain collectively is the performance of the mutual obligation of the employer and the representative of the employees to meet at reasonable times and confer in good faith with respect to wages, hours, and other terms and conditions of employment, or the negotiation of an agreement, or any question arising thereunder, the execution of a written contract incorporating any agreement reached if requested by either party but such obligation does not compel either party to agree to a proposal or require the making of a concession: *Provided*, That where there is in effect a collective-bargaining contract covering employees in an industry affecting commerce, the duty to bargain collectively shall also mean that no party to such contract shall terminate or modify such contract, unless the party desiring such termination or modification—

“(1) serves a written notice upon the other party to the contract of the proposed termination or modification sixty days prior to the expiration date thereof, or in the event such contract contains no expiration date, sixty days prior to the time it is proposed to make such termination or modification;

“(2) offers to meet and confer with the other party for the purpose of negotiating a new contract or a contract containing the proposed modifications;

“(3) notifies the Federal Mediation and Conciliation Service within thirty days after such notice of the existence of a dispute, and simultaneously therewith notifies any State or Territorial agency

established to mediate and conciliate disputes within the State or Territory where the dispute occurred, provided no agreement has been reached by that time; and

“(4) continues in full force and effect, without resorting to strike or lock-out, all the terms and conditions of the existing contract for a period of sixty days after such notice is given or until the expiration date of such contract, whichever occurs later. . . .

“Representatives and Elections

. . . No investigation shall be made by the Board of any question affecting commerce concerning the representation of employees, raised by a labor organization . . . no petition . . . shall be entertained, and no complaint shall be issued pursuant to a charge made by a labor organization . . . unless there is on file with the Board an affidavit executed contemporaneously or within the preceding twelve-month period by each officer of such labor organization and the officers of any national or international labor organization of which it is an affiliate or constituent unit that he is not a member of the Communist Party or affiliated with such party, and that he does not believe in, and is not a member of or supports any organization that believes in or teaches, the overthrow of the United States Government by force or by any illegal or unconstitutional methods. The provisions of section 35 A of the Criminal Code shall be applicable in respect to such affidavits. . . .

TITLE II. CONCILIATION OF LABOR DISPUTES IN INDUSTRIES AFFECTING COMMERCE; NATIONAL EMERGENCIES

. . . That it is the policy of the United States that

(a) sound and stable industrial peace and the advancement of the general welfare, health, and safety of the Nation and of the best interests of employers and employees can most satisfactorily be secured by the settlement of issues between employers and employees through the processes of conference and collective bargaining between employers and the representatives of their employees;

(b) the settlement of issues between employers and employees through collective bargaining may be advanced by making available full and adequate governmental facilities for conciliation, mediation, and voluntary arbitration to aid and encourage employers and the

representatives of their employees to reach and maintain agreements concerning rates of pay, hours, and working conditions, and to make all reasonable efforts to settle their differences by mutual agreement reached through conferences and collective bargaining or by such methods as may be provided for in any applicable agreement for the settlement of disputes; and

(c) certain controversies which arise between parties to collective-bargaining agreements may be avoided or minimized by making available full and adequate governmental facilities for furnishing assistance to employers and the representatives of their employees in formulating for inclusion within such agreements provision for adequate notice of any proposed changes in the terms of such agreements, for the final adjustment of grievances or questions regarding the application or interpretation of such agreements, and other provisions designed to prevent the subsequent arising of such controversies.

. . . There is hereby created an independent agency to be known as the Federal Mediation and Conciliation Service . . . The Service shall be under the direction of a Federal Mediation and Conciliation Director . . . who shall be appointed by the President by and with the advice and consent of the Senate. . . .

Functions of the Service

. . . It shall be the duty of the Service, in order to prevent or minimize interruptions of the free flow of commerce growing out of labor disputes, to assist parties to labor disputes in industries affecting commerce to settle such disputes through conciliation and mediation.

. . . The Service may proffer its services in any labor dispute in any industry affecting commerce, either upon its own motion or upon the request of one or more of the parties to the dispute, whenever in its judgment such dispute threatens to cause a substantial interruption of commerce. . . .

National Emergencies

. . . Whenever in the opinion of the President of the United States, a threatened or actual strike or lock-out affecting an entire industry or a substantial part thereof engaged in trade, commerce, transportation, transmission, or communication among the several States or with foreign nations, or engaged in the production of goods for commerce, will, if permitted to occur or to continue, imperil the

national health or safety, he may appoint a board of inquiry to inquire into the issues involved in the dispute and to make a written report to him within such time as he shall prescribe. . . .

Upon receiving a report from a board of inquiry the President may direct the Attorney General to petition any district court of the United States having jurisdiction of the parties to enjoin such strike or lock-out or the continuing thereof, and if the court finds that such threatened or actual strike or lock-out—

- (i) affects an entire industry or a substantial part thereof engaged in trade, commerce, transportation, transmission, or communication among the several States or with foreign nations, or engaged in the production of goods for commerce; and
- (ii) if permitted to occur or to continue, will imperil the national health or safety, it shall have jurisdiction to enjoin any such strike or lock-out, or the continuing thereof, and to make such other orders as may be appropriate. . . .

Upon the issuance of such order, the President shall reconvene the board of inquiry which has previously reported with respect to the dispute. At the end of a sixty-day period (unless the dispute has been settled by that time), the board of inquiry shall report to the President the current position of the parties and the efforts which have been made for settlement, and shall include a statement by each party of its position and a statement of the employer's last offer of settlement. The President shall make such report available to the public. The National Labor Relations Board, within the succeeding fifteen days, shall take a secret ballot of the employees of each employer involved in the dispute on the question of whether they wish to accept the final offer of settlement made by their employer as stated by him and shall certify the results thereof to the Attorney General within five days thereafter.

. . . Upon the certification of the results of such ballot or upon a settlement being reached, whichever happens sooner, the Attorney General shall move the court to discharge the injunction, which motion shall then be granted and the injunction discharged. When such motion is granted, the President shall submit to the Congress a full and comprehensive report of the proceedings, including the findings of the board of inquiry and the ballot taken by the National Labor Relations Board, together with such recommendations as he may see fit to make for consideration and appropriate action. . . .

TITLE III. SUITS BY AND AGAINST LABOR ORGANIZATIONS

. . . Suits for violation of contracts between an employer and a labor organization representing employees in an industry affecting commerce as defined in this Act, or between any such labor organizations, may be brought in any district court of the United States having jurisdiction of the parties, without respect to the amount in controversy or without regard to the citizenship of the parties.

. . . Any labor organization which represents employees in an industry affecting commerce as defined in this Act and any employer whose activities affect commerce as defined in this Act shall be bound by the acts of its agents. Any such labor organization may sue or be sued as an entity and in behalf of the employees whom it represents in the courts of the United States. Any money judgment against a labor organization in a district court of the United States shall be enforceable only against the organization as an entity and against its assets, and shall not be enforceable against any individual member or his assets. . . .

Boycotts and Other Unlawful Combinations

. . . It shall be unlawful, for the purposes of this section only, in an industry or activity affecting commerce, for any labor organization to engage in, or to induce or encourage the employees of any employer to engage in, a strike or a concerted refusal in the course of their employment to use, manufacture, process, transport, or otherwise handle or work on any goods, articles, materials, or commodities or to perform any services, where an object thereof is—

- (1) forcing or requiring any employer or self-employed person to join any labor or employer organization or any employer or other person to cease using, selling, handling, transporting, or otherwise dealing in the products of any other producer, processor, or manufacturer, or to cease doing business with any other person;
- (2) forcing or requiring any other employer to recognize or bargain with a labor organization as the representative of his employees unless such labor organization has been certified as the representative of such employees under the provisions of section 9 of the National Labor Relations Act;
- (3) forcing or requiring any employer to recognize or bargain with a particular labor organization as the representative of his employees if another labor organization has been certified as the representative of

such employees under the provisions of section 9 of the National Labor Relations Act;

- (4) forcing or requiring any employer to assign particular work to employees in a particular labor organization or in a particular trade, craft, or class rather than to employees in another labor organization or in another trade, craft, or class unless such employer is failing to conform to an order or certification of the National Labor Relations Board determining the bargaining representative for employees performing such work. . . .

Whoever shall be injured in his business or property . . . may sue therefor in any district court of the United States . . . without respect to the amount in controversy, or in any other court having jurisdiction of the parties, and shall recover the damages by him sustained and the cost of the suit.

Restriction on Political Contributions

. . . It is unlawful for any national bank, or any corporation . . . or any labor organization to make a contribution or expenditure in connection with any election at which Presidential and Vice Presidential electors or a Senator or Representative in, or a Delegate or Resident Commissioner to Congress are to be voted for, or in connection with any primary election or political convention or caucus held to select candidates for any of the foregoing offices, or for any candidate, political committee, or other person to accept or receive any contribution prohibited by this section. Every corporation or labor organization which makes any contribution or expenditure in violation of this section shall be fined not more than \$5,000; and every officer or director of any corporation, or officer of any labor organization, who consents to any contribution or expenditure by the corporation or labor organization, as the case may be, in violation of this section shall be fined not more than \$1,000 or imprisoned for not more than one year, or both. For the purposes of this section 'labor organization' means any organization of any kind, or any agency or employee representation committee or plan, in which employees participate and which exists for the purpose, in whole or in part, of dealing with employers concerning grievances, labor disputes, wages, rates of pay, hours of employment, or conditions of work."

Strikes by Government Employees

. . . It shall be unlawful for any individual employed by the

United States or any agency thereof including wholly owned Government corporations to participate in any strike. Any individual employed by the United States or by any such agency who strikes shall be discharged immediately from his employment, and shall forfeit his civil service status, if any, and shall not be eligible for reemployment for three years by the United States or any such agency. . . .

SECTION VIII

Credit and Banking

IN THE EARLIER HISTORY OF THE WESTERN WORLD money—in the absence of barter—served as the principal medium of exchange. With the advent of the Industrial Revolution, however, and the production of goods for sale under an intricate system of specialization and exchange, credit began to play an increasingly important role in the economy. Studies have shown that today actual money, in the sense of cash or hand-to-hand currency, amounts to less than 15% (by dollar volume) of what is spent. It is an important 15%, of course, since it goes into “small change” transactions and takes care of inappreciable, but significant, daily needs. Yet, such pocketbook money is not entirely adequate or convenient for transactions of any consequence. Business men and consumers, but especially the former, stand in need of mass means of exchange, a need which today is filled largely by the provision of credit through the banking system. This credit, which is provided mainly in the form of checkbook money (deposit accounts) and bank notes, has come to be of vital importance to the functioning of our economic order. At the same time, however, its creation by individual banks and the banking system as a whole has raised some difficult quantitative and qualitative problems of control.

The part which credit plays in the modern economy is a peculiar one, for it is essentially abstract in its operation. Large sums of “money” are paid in and out of a bank and a large volume of business is often transacted without one penny of cash ever leaving the bank’s vaults. Banking debts, business debts, and government operations are frequently nothing more than just entries on a set of books—nothing more than abstract claims and rights involving only “paper work.” In spite of its abstract and fictitious nature, however, credit performs the important function of providing a modern medium of mass exchange of which our economy stands in dire need.

Credit or checkbook money has largely displaced the use of pocketbook money in importance, because its quantity can be subjected to elastic operation—both in expansion and contraction. Since credit can be created and destroyed, the amount of it in circu-

lation at any time will be determined mainly by the needs of the community for means of payment. During holiday seasons, like Christmas or Easter for example, there is a much greater need for credit than usual—not only because consumers require means of financing their purchases, but also because business men need funds to finance the production of goods in anticipation of a high demand. Such seasonal credit requirements by the community must be planned for by both individual banks and the banking system as a whole. In addition to seasonal fluctuations in the quantity of credit, cyclical, secular, and erratic fluctuations must be taken into account, since they all involve either an expansion or contraction in the volume of credit as a means of payment made available to the community by the banks.

In order to understand the periodic creation and destruction of credit, we must look into the inner workings of not only an individual bank but also of a whole banking system. We must understand the integration of the single bank into the system as a whole, for the problems of the central bank or the whole system are not necessarily the same as those of the individual member banks. We must also learn to appreciate the active role which credit, banks, and bankers play in the economy, for the loan and investment policies of commercial and central banks often produce very significant effects on the level of business activity. Only if we understand the method of credit creation and destruction, the integration of the single bank into the banking system, and the loan and investment policies pursued by banks and central banks, can we gain an insight into the monetary and banking problems of our time and be in a position to appraise the various remedies proposed.

Some of the proposals for reform envision a mere modification of banking structure and practice. Of such nature is the branch banking scheme which would replace our unit or individual banks with a well integrated network of branch banks. Other proposals, instead of being mere modifications, recommend a thorough overhauling of the entire money and credit system. Of such nature is the 100% *Money* plan of the late Irving Fisher and the suggestion for the socialization of the central bank functions by G. D. H. Cole. All of these proposals aim at the elimination of the adverse effects produced on our economy by the institutions of credit and banking. Before we examine their validity and undertake any reforms, let us be sure we understand the meaning of credit and the role which our banks play in its creation.

CHAPTER 19

Banks and the Supply of Credit

CREDIT CREATION BY A SINGLE BANK¹

E. W. KEMMERER²

A well known banking expert here explains the meaning of credit and the important ways in which a bank can extend credit.

A commercial bank is a concern which makes a business of receiving the funds of others on general deposit and of using them, together with its own capital funds, as a basis for credit which it lends chiefly in the form of deposits and/or circulating notes. The principal business of a bank is lending credit. It makes funds available in the present and in exchange it takes claims for funds available in the future.

CREDIT

The word *credit* has a variety of meanings; the Oxford Dictionary distinguishes twenty-one. Etymologically, it comes from the Latin word *credere*, meaning "to believe" or "to trust," and it always carries with it the idea of trust or confidence placed in one person by another. One meaning of the cognate Italian word *credito* is "reputation." Here we are concerned only with the restricted usage of the term *credit* that relates to banking operations.

From the standpoint of a bank, credit may be viewed from two different angles, that of the bank as a creditor and that of the bank as a debtor. As a creditor, the bank is concerned with "the capacity for credit" of its customers, actual and prospective. It wants to know how much it can safely lend to each customer and the amount and character of the collateral it should require. These are questions that call for an understanding of the customer's moral character and business ability and demand a thorough knowledge of the nature of his business and of his assets and liabilities, subjects to be considered

¹ This selection is reprinted by kind permission of the publishers from E. W. Kemmerer, *Money*, New York: The Macmillan Company, 1935, pages 38-47.

² Edwin Walter Kemmerer (1875-1945) was sometime Walker Professor of International Finance in Princeton University.

later. In this chapter we are concerned only with bank credit from the standpoint of the bank as a debtor.

A bank may lend its credit in a number of ways, of which the principal are: (1) deposits, (2) bank notes, (3) current account credits and (4) acceptances. . . . The nature of deposit and bank-note credit may best be explained by assuming a bank comparatively free from governmental restrictions as regards deposits, bank-note issues, and reserves—a bank similar to the First or the Second United States Bank—and by following a few simple operations through the balance sheet.

Deposits

Let us assume that the bank is organized with a million dollars of cash paid-up capital. It expends \$150,000 for a banking house and \$15,000 for furniture and fixtures. When it opens for business, its balance sheet stands, therefore, as follows:

Resources		Liabilities	
Banking House	\$ 150,000	Capital Stock	\$1,000,000
Furniture and Fixtures	15,000		
Cash in Vault	835,000		
Total	<u>\$1,000,000</u>	Total	<u>\$1,000,000</u>

By the end of the first week the bank has received deposits of cash amounting to \$140,000; and has discounted for various customers \$500,000 of sixty-day notes at 6 per cent, the borrower in each case having left the entire proceeds of his discounted note on deposit with the bank. The cash deposits of \$140,000 add that amount to the "cash in vault" as a resource, and the same amount as a deposit on the liability side. A discount charge of \$5,000 (amounting to 6 per cent for 60 days) of the \$500,000 was made by the bank for discounting the \$500,000 of notes. This discount is taken out in advance and the amount is entered as undivided profit among the liabilities and is, like the bank's capital, a liability of the bank to its stockholders. The balance, \$495,000, is entered as deposits. The balance sheet then stands as follows:

Resources		Liabilities	
Banking House	\$ 150,000	Capital Stock	\$1,000,000
Furniture and Fixtures	15,000	Undivided Profit	5,000
Cash in Vault	975,000	Deposits	635,000
Loans and Discounts	500,000		
Total	<u>\$1,640,000</u>	Total	<u>\$1,640,000</u>

It will be observed that of the \$635,000 of deposits, \$495,000 represents no cash payment to the bank whatsoever, but is merely a book entry placing to the credit of depositors this amount, which is the proceeds of the promissory notes which the bank has discounted for them. The bank has merely loaned these customers its credit, which they may check against as they will. Suppose that, during the next few days, there are a large number of applications from responsible business men for loans and that the bank discounts for them \$2,000,000 of paper, this time all 90-day promissory notes, at 6 per cent, the entire proceeds (amounting to \$1,970,000) being left for the time being entirely on deposit. Here the bank is lending and placing to the borrowers' credit on deposit account \$1,970,000, although its books showed at the time the loans were made that it had only \$975,000 of cash in its possession. These deposits, moreover, are payable in cash on demand. After this operation, the balance sheet stands as follows:

Resources		Liabilities	
Banking House	\$ 150,000	Capital Stock	\$1,000,000
Furniture and Fixtures	15,000	Undivided Profit	35,000
Cash in Vault	975,000	Deposits	2,605,000
Loans and Discounts	2,500,000		
Total	<u>\$3,640,000</u>	Total	<u>\$3,640,000</u>

The bank has now loaned \$2,500,000, although its total receipts of cash from the beginning have been but \$1,140,000 and it has spent \$165,000 of that for the banking house, furniture and fixtures. It still has on hand \$975,000 in cash, but it owes depositors \$2,605,000. Obviously, if the depositors should all exercise their legal right to draw out at once the full amount of their deposits, the bank would not have enough money to pay much more than a third of the amount demanded. There are sufficient resources, if they were all turned into cash, to meet all possible demands, paying every dollar of deposits; but the resources are largely in the form of customers' notes that will not be due for some time, while depositors' demands may be for cash.

As a matter of fact, however, the bank knows that there is little likelihood that any very large percentage of deposits will be withdrawn in any one day. It, furthermore, knows that every day there will be receipts as well as withdrawals, since its customers will ordinarily deposit the money and checks they receive over their counters

each day. The money the bank receives over its counters in a day will often exceed that which it is called to pay out; while checks on one depositor's account which are deposited by another depositor will cancel each other so far as the balance sheet of the bank is concerned, the transfers being effected merely by debit and credit entries on the books of the bank. The result is that a cash reserve equivalent to a small percentage of deposits is likely to be ample to meet all demands of depositors and to leave an adequate margin of safety.

Ordinarily, a borrower discounting paper at a bank does not leave the entire proceeds of the loan on deposit long. He usually checks against the new credit at once and gradually reduces it; and, as he does so, the bank loses some of its cash and has its percentage of reserve reduced. The bank in our illustration is still carrying a cash reserve against deposits of over 37 per cent, despite its large loans.

Let us assume that, through presentation of checks over the bank's counter, \$475,000 of cash is withdrawn. The balance sheet then stands as follows:

Resources		Liabilities	
Banking House	\$ 150,000	Capital Stock	\$1,000,000
Furniture and Fixtures	15,000	Undivided Profit	35,000
Cash in Vault	500,000	Deposits	2,130,000
Loans and Discounts	2,500,000		
Total	<u>\$3,165,000</u>	Total	<u>\$3,165,000</u>

The percentage reserve is reduced from 37 to about 23.

The less rapidly a borrower reduces the deposit credit representing the proceeds of his loan, and the larger the deposit balance he maintains at the bank, the more profitable his account will be to the bank. In a sense, the bank is having its cake and eating it, too. It is lending the depositor at interest its own credit, namely, the right to draw money on demand, and then keeping part of the credit it has loaned. Borrowers who withdraw the proceeds of their loans quickly and normally carry low deposit balances in proportion to the amounts they borrow are not likely to receive such favorable treatment from banks as customers who keep substantial balances in proportion to their loan accounts. The latter class are the most profitable to the bank. Often banks make the maintenance of a deposit balance of a certain minimum or average amount a condition to granting a certain line of credit.

BANK NOTES

The second important form of bank credit is bank-note credit. From the standpoint of the issuing bank, notes of the simplest type of asset currency are essentially the same as demand deposits; although, from the standpoint of the public, there are important differences that will be considered later. Such a bank note is, like the bank deposit, a promise to pay lawful money on demand. Like a deposit, it requires of the bank the maintenance of an adequate cash reserve, and, like a deposit, it is readily transferable from person to person. The deposit is an implied promise to pay, evidenced ordinarily by a pass book, the payment to be made usually against checks properly drawn and signed in accordance with banking law and established practice; the note is a promise to pay engraved on a piece of paper which circulates as money. Like the check, drawn against a deposit, the bank note must be redeemed by the issuing bank in lawful money when presented over its counter for redemption.

Under these circumstances, it should obviously be a matter of little difference to a bank issuing such bank notes, whether a borrower takes the proceeds of his loan in the form of a deposit credit which he can check against or in the form of bank notes which he can use directly as money. The similarity of these two forms of bank credit may be made clearer by carrying through the balance sheet a few operations involving bank notes.

Suppose that, among the customers of the bank, there are several factories employing laborers whom they pay weekly in "cash." These factories, we will suppose, have sold heavily on credit and, finding themselves short of ready funds for their payroll, borrow of the bank \$500,000 by discounting their 60-day notes at 6 per cent. They take \$300,000 of the proceeds of their loan at once in the form of bank notes, which they pay over entirely to their laborers in the Saturday pay envelopes, and they leave the balance (\$195,000) on deposit. The balance sheet of the bank will then stand as follows:

Resources		Liabilities	
Banking House	\$ 150,000	Capital Stock	\$1,000,000
Furniture and Fixtures	15,000	Undivided Profit	40,000
Cash in Vault	500,000	Deposits	2,325,000
Loans and Discounts	3,000,000	Bank Notes	300,000
Total	\$3,665,000	Total	\$3,665,000

The percentage of reserve against demand liabilities (formerly only against deposits, but now against deposits and bank notes) will be reduced from 23 to about 19. So long as these bank notes remain in circulation, namely, in the tills of merchants and in the pockets of the people, they make no demand on the bank's cash. The bank, in giving its notes to the borrowers, has in effect swapped its non-interest-bearing demand promises to pay, that circulate as money, for the factories' interest-bearing time promises to pay, that do not circulate as money. In this way, the bank lends its credit and realizes its profit. Whether the bank's own demand promises to pay are in the form of its own bank notes or of deposits obviously makes very little difference to the bank. If bank notes to the amount of \$200,000 should be deposited at the bank by laborers receiving them, the bank-note item in the balance sheet would be reduced to \$200,000 and the deposit item would be increased to \$2,525,000; but neither the total demand liabilities nor the cash reserve would be affected, and the reserve percentage would, therefore, remain unchanged at about 19. Returning to the balance sheet as given above, if another factory in the town should need \$200,000 for payroll purposes and should obtain them by checking against its deposit account with the bank, deposits would be reduced from \$2,325,000 to \$2,125,000 and bank notes would be increased from \$300,000 to \$500,000, but the bank's total liabilities and its reserve percentage would remain entirely unchanged. It is only when bank notes outstanding and deposits combined are raised or lowered in relation to the cash on hand, that reserve percentages are affected. The interchange of deposit liabilities and note liabilities has no effect on the bank's reserve position.

DEPOSIT VS. BANK-NOTE CREDIT

Although these two forms of circulating bank credit are fundamentally the same from the bank's point of view, they are different in important particulars from the public point of view. Let a stranger in any city try to make purchases with his checks and he will soon recognize that a check, however good, is a very different thing from a bank note. Or, let anyone compare a check with a bank note in its usefulness for buying a railroad ticket or in buying stamps at the post office. The bank note in a sound and well-organized banking system is accepted everywhere in the country as money, without reference to the character or the credit of the person who is paying it, even though the place of payment may be thousands of miles away from

the office of the issuing bank and although the bank may be entirely unknown to the person receiving the note. While this is not true in countries with defective bank-note currency, it is normally true in advanced countries. The check is accepted only when the recipient has confidence in the character and credit of the person paying it. The receiver of the bank note is likely to pass it on to someone else in purchasing goods or paying for services, and so it often remains "away from home" (namely from the issuing bank)—sometimes very far from home—for long periods of time, passing through the hands of many people who know little or nothing of the standing of the issuing bank or, perhaps, of any other bank. Such a bank note is money.

Bank notes and other forms of money, as contrasted with bank deposits circulating through the instrumentality of checks, so-called "deposit currency," are used much more extensively by the poor than by the well-to-do. Ordinarily, a check makes one payment, is deposited by the recipient at his bank, and is then "kept home" or "sent home" and canceled. Its life is of brief duration. People expect to scrutinize checks when they are offered and, for the purpose of protecting themselves, they usually deposit or cash the checks promptly, thus "sending them home." It would be an unendurable nuisance to trade if bank notes had to be treated in the same way. Bank-note holders, furthermore, are not in so good a position to protect themselves as are depositors. One selects a bank in which to keep his account, presumably with some knowledge of the character of its officers and of its financial standing. When there are many banks of issue, as in the United States, he is not in position to examine the financial standing of all the banks whose bank notes are paid to him. In case of bank failure, the deposit loss is likely to fall in the main on financially broader shoulders than is the bank-note loss; although the average amount of the loss per creditor is likely to be much larger for depositors than for holders of bank notes. Because of these and other differences, from the public point of view, between deposits and bank notes, the government usually throws special safeguards around the issuance of bank notes as a means of protecting the public.

In many jurisdictions bank notes enjoy a prior lien on the assets of the issuing bank so that, in case of bank failure, bank-note holders must receive their pay in full before anything is paid to depositors or stockholders. Special guarantee funds are sometimes set aside for

the protection of note holders in case of bank failures. Legal reserve requirements often exist against notes where they do not exist against deposits; and, when they exist for both, they are sometimes higher for notes than for deposits. The pledging with the government of some special form of asset, like the United States bonds against national bank notes in this country, has been a common device for the protection of note holders. In recent years there has been a strong tendency to give a monopoly of the bank-note issue privilege to central banks, which are closely identified with the financial interests of the state, and whose quasi-public character is recognized. This is now the situation in most of the leading countries of the world.

THE BANK RESERVE

A very important element in bank credit is the bank reserve. The term *bank reserve* in the United States is used loosely and in a variety of meanings. We speak of "cash reserve," "deposited reserve," "legal reserve," "actual reserve" and "secondary reserve." In the strictest and narrowest sense of the term, although not in the sense in which the term is most commonly used, a true bank reserve would consist solely of legal tender money actually in the possession of the bank, for it is only in such money that a bank may legally pay its creditors—depositors and note holders—if they so insist. These obligations, moreover, for the most part are demand obligations, and failure to meet them on demand is an act of insolvency. All kinds of money in the United States today are legal tender.

From the previous discussion of the balance sheet, the function of the bank reserve has been made evident. The term *bank reserve*, therefore, . . . means the money which a bank carries in its own vaults and tills for the purpose of meeting demands upon it for cash on the part of its customers. Cash in reserve does not directly yield the bank a profit and therefore, other things equal, the larger the proportion of its assets a bank keeps in the form of "idle" reserve, the less the profit it makes. The profit-making motive, therefore, continually operates to drive reserves down to the minimum. On the other hand, a bank is a credit institution and its own reputation for strength and solvency is its greatest asset. Anything that impairs that reputation drives away customers and tends to reduce profits. The financial standing of a bank in a community is easily weakened and, when once weakened, can only slowly and with difficulty be restored. The failure of a bank to meet the demands of its depositors and note

holders (except in times of legal moratoria) is an act of insolvency and, even if it is only temporary, is a serious blow to a bank's prestige. These considerations compel banks to carry sufficient reserves to meet all probable demands and, in addition, to afford a substantial margin of safety. There is here a continual conflict of motives, immediate profits on the one hand and safety, prestige and long-run profits on the other hand.

Because experience has shown that many banks in their zeal for immediate profit will reduce their reserves to dangerously low figures, thereby imperiling the funds entrusted to them and threatening the country's whole delicate credit structure, and because the banks which do this are for a time dangerous competitors of more conservative banks which are better protecting the public interests, we have found it desirable in the United States, as have people in some other countries, to impose by law legal reserve minima. Such minima are enforced by the laws of the Federal Government and also by the laws of most of our states. They virtually say to the banks: "Each bank must decide for itself above a reasonable limit what percentage of reserve it needs. This percentage will vary from bank to bank, according to the character of its customers and the type of business it chiefly serves. For each bank it will also vary from season to season, according to the seasonal changes in the business needs of the community. But there are limits beyond which no bank can safely go without endangering the public interest, and the rules of the banking game are that those limits shall not be passed, except perhaps temporarily under emergency conditions and subject to certain penalties."

THE SINGLE BANK AND THE BANKING SYSTEM¹

BOARD OF GOVERNORS,
FEDERAL RESERVE SYSTEM

Here it is shown how additional reserve funds, which enable the individual bank to expand credit by an almost equal amount, enable the banking system as a whole to expand the total volume of credit by several times that amount.

Bank deposits result chiefly from loans and other extensions of credit by banks. This does not mean, though, that an individual banker can increase his deposits to any desired extent simply by lending. He can not do that, because when his customers borrow they use the money they borrow; they pay it to others by whom most or all of it will be deposited in other banks. The banker has to part with most of what he lends and must be prepared for reduction of his reserves accordingly. When he makes a loan and the funds are credited to the deposit account of the borrower and then checked out, the funds sooner or later leave his bank and go on deposit in another bank. Under these circumstances, his loan increases another bank's deposits. If the other banker is also lending, then the deposits of both will increase still further. Each gets a part or most of what the other lends. So, in fact, the individual banker normally has more money to lend when other bankers are lending than he has when they are not lending. It is only when this process of lending is general and simultaneous on the part of many bankers that it can cause a rapid growth of bank deposits. No one banker has control of such a process. He has no means of making other bankers lend—no means of making customers start borrowing. He has to feel his way, constantly watching the volume of his reserves. Unless his reserves are adequate he will not wish to lend and run the risk of having them depleted. Accordingly, the requirement that he maintain a certain ratio between his reserves and his deposits is in effect a limitation on his power to lend.

¹ This selection is reprinted from the Board of Governors of the Federal Reserve System, *The Federal Reserve System, Its Purposes and Functions*, Washington, D. C., 1939, pages 68-75.

ASSUMING THERE WERE ONLY ONE BANK

Suppose there were only one bank instead of several thousand, and that this one bank did all the commercial banking business in the country. Suppose further that this bank were required by law to have reserves equal to at least 20 per cent of its deposits. Thus if it had deposits of \$5,000,000,000, its reserve balance with the Reserve Bank would have to be at least \$1,000,000,000.

Suppose that it had just exactly that—\$5,000,000,000 of deposits and \$1,000,000,000 of reserves, with \$4,000,000,000 of loans and investments. In such case, if it were to lend a single additional dollar it would reduce its reserves below the legal requirement, because if it did make a loan, the borrower would be given credit for it in his checking account, the bank's deposits would go up, its reserve balance would *not* go up, and in consequence the reserve balance would be less than 20 per cent of the bank's deposits.

The borrower, of course, would write a check for the amount he wanted to use, and so *his* deposit balance would be reduced; but the money would not necessarily leave the bank, or if it did it would come right back. For if the check were deposited by its recipient it would merely transfer a certain amount of deposit credit from the borrower's account to the recipient's account. Or if it were cashed by the bank, the currency would sooner or later be deposited, and the funds which went out of the bank through one account would come back in through another. The bank's deposits would be increased by the loan in any event, except only if the money were kept in circulation, sent out of the country, or permanently lost, destroyed, or hidden. There would be no other bank for it to go to.

Realizing that any additional loans it made would increase its deposits out of proportion to its reserves, the commercial bank might stop making new loans. Suppose, however, that the Reserve authorities were of the opinion that more loans might advantageously be made and that the bank should be provided with additional reserves, so that it could make them. Suppose they therefore purchase \$20,000,000 of securities in the open market. The sellers of the securities would deposit in the commercial bank the money they received in payment. The commercial bank in turn would deposit it in its reserve account at the Reserve Bank. Having these additional reserves of \$20,000,000, the commercial bank, by making loans, could increase its deposits to five times as much, or \$100,000,000—the \$20,000,000.

being the 20 per cent reserves required against deposits of \$100,000,000.

Another possibility is that the commercial bank might borrow the \$20,000,000 from the Reserve Bank. But whether the commercial bank took the initiative in borrowing or the Federal Reserve authorities took the initiative in purchasing securities, in either event the sum total of reserve funds would be increased, and lending on an increased scale would be possible. In either event also, the Reserve authorities would not need to advance the full amount that the commercial bank would lend, but only enough to supply the 20 per cent reserve required against the increased deposits resulting from its lending.

TAKING ALL BANKS TOGETHER

The same principle that would operate if there were only one bank holds true of all banks taken together—the great difference being that effects which are immediately and directly discernible when there is assumed to be only one bank are much more difficult to follow when the explanation is applied individually to the thousands of banks actually in operation. What is true of banks as a whole is not true of every individual bank; there are always exceptions. When bank reserves in the aggregate are in excess of requirements, there nevertheless will be individual banks with no excess reserves; and when, therefore, banks in general are in a position to extend abundant credit, there nevertheless will be individual banks in no such easy condition. In particular, when the sum total of reserve funds is augmented by Federal Reserve or other action the increase will manifest itself first at certain individual banks which happen to be recipients of the additional funds. But no bank can expect to keep permanently what it receives. Its customers are always checking its funds elsewhere. By the normal and active process of clearing the enormous number of checks that are constantly being drawn on one bank and deposited in another—thereby entailing the transfer of funds from the reserve balance of one bank to the reserve balance of another—a rapid movement or circulation of reserve funds is maintained. The result is that any increase in the total volume of reserve funds tends sooner or later to spread itself from the few banks where it originates to many other banks, if not all.

Let us assume that the Reserve authorities realize that banks as a whole have insufficient reserves for the expansion of credit that is

needed and proceed to buy Government securities in order to supply the money market with additional funds. Suppose as before that they buy \$20,000,000 worth and that the entire sum happens to be deposited in some one bank. That particular bank's deposits and reserves will both be increased by \$20,000,000. But the bank is not required to have reserves of more than 20 per cent, and 20 per cent of the increase is \$4,000,000. Therefore, \$16,000,000 of what the bank receives is excess reserves. It lends the \$16,000,000—assuming it can find borrowers—and the whole amount, let us suppose, is checked out and deposited in a second bank. This second bank with increased deposits of \$16,000,000 against which it is required to keep reserves of only 20 per cent, or \$3,200,000, gets in consequence excess reserves of \$12,800,000. It lends these funds, and they are checked out by the borrowers and deposited in a third bank. The third bank, having to keep reserves of only 20 per cent against the increase of \$12,800,000 in its deposits, gets excess reserves of \$10,240,000 to lend. It lends, and the amount is checked out by the borrowers and deposited in a fourth bank. It is evident that this process could go on till the amounts involved for successive banks were negligibly small. Including six more banks in the illustration, or ten in all, the additional deposits, loans, and reserves made possible by the Federal Reserve Bank's disbursement of \$20,000,000 would be as follows:

	Additional Deposits Received (100%)	Additional Loans Made (80%)	Additional Reserves Retained (20%)
1st bank	\$20,000,000	\$16,000,000	\$ 4,000,000
2nd bank	16,000,000	12,800,000	3,200,000
3rd bank	12,800,000	10,240,000	2,560,000
4th bank	10,240,000	8,192,000	2,048,000
5th bank	8,192,000	6,553,600	1,638,400
6th bank	6,553,600	5,242,880	1,310,720
7th bank	5,242,880	4,194,304	1,048,576
8th bank	4,194,304	3,355,443	838,861
9th bank	3,355,443	2,684,355	671,088
10th bank	2,684,355	2,147,484	536,871
Total first 10 banks	<u>\$89,262,582</u>	<u>\$71,410,066</u>	<u>\$17,852,516</u>
Other banks in turn	10,737,418	8,589,934	2,147,484
	<u>\$100,000,000</u>	<u>\$80,000,000</u>	<u>\$20,000,000</u>

These figures assume, for the sake of simplicity, that every bank

is able to find borrowers for the full amount that it can lend and that the full amount of every loan is checked out to some one other bank; that there are no left-overs and that the different banks come into the picture one at a time. They make no allowance for the fact that an individual bank in making loans is not limited to its excess reserves, because it can bring them up to the required level by borrowing from its Reserve Bank.

On this basis, the figures show that the first ten banks had additional reserves of \$17,852,516, additional loans of \$71,410,066, and additional deposits of \$89,262,582. Other banks sharing in the remaining portion of the \$20,000,000 of additional reserves would increase their loans by \$8,589,934 and would have additional deposits of \$10,737,418. In the end, accordingly, an expansion of deposits amounting to \$100,000,000 would be made possible by the \$20,000,000 of additional reserves created by Federal Reserve action. The result would be the same if the banks were to purchase securities instead of making loans.

Of course, there would never be such an absolutely uniform division as we have been supposing, but the principle nevertheless holds true. Each bank could lend whatever reserves it had in excess of what it was required to have, and in the end the total additional loans and the total additional deposits would be several times as great as the total additional reserve funds created by the Reserve authorities' purchase of securities.

The fact that what can be done by the banking system as a whole differs so much from what can be done by any individual bank is one of the most difficult things to understand clearly in the whole field of banking. It seems paradoxical. Yet it is a fundamental fact of utmost importance. The difficulty is to see that the limited power of the individual bank, which can lend somewhat *less* than the amount of additional reserves it receives, can, when exercised by many individual banks, enable them all together to lend several times the amount of the additional reserves. But what each bank receives is in each case the greater part of what has already been received by another bank, so that the same amount keeps working over and over again, a little diminished each time.

The practical consequence of this is that the Federal Reserve authorities, by supplying a *relatively small* volume of additional reserve funds, make it possible for the banking system as a whole to supply the public with a *far greater* volume of credit. Contrariwise,

by withdrawing a relatively small amount of funds, when member banks have no excess reserves, the Federal Reserve authorities can make it necessary for the banking system to borrow the amount withdrawn or to reduce loans and investments—and consequently deposits—by several times that amount.

CHAPTER 20

Proposed Reforms of Credit and Banking

THE NEED FOR BRANCH BANKING¹

J. M. CHAPMAN

• R. B. WESTERFIELD²

It is contended here that the institution of branch banking will help to solve some of the problems which must be considered if we are to have in the future a banking system which is adequate, safe, and convenient.

One of the important developments in commercial banking in the United States in recent years has been the marked growth of branch banking. This change has manifested itself in various ways, particularly (1) in the liberalization of branch banking laws widening the branch areas and (2) in the actual growth in the number of branches operated by both national and state banks. The economic and financial reasons for these changes are in part the following: the large number of bank failures, decline in the volume of short-term loans by banks, inadequate banking facilities in many communities, the favorable experience of other countries with branch banking, the need for additional bank capital, the inability of small banks to render complete banking services for large business organizations, and the necessity of providing banking facilities at a lower cost than has been done in the past.

The expansion of branches in Canada and in most of the European countries, together with the general movement toward banking concentration in those countries, has certainly influenced the trend of banking in this country. Branch banking had not been extensively practiced in the United States since the Civil War, but in view of the

¹ This selection is reprinted by kind permission of publisher and authors from John M. Chapman and Ray B. Westerfield, *Branch Banking*, New York: Harper & Brothers Publishers, 1942, pages 1-2, 7-9, 10, 11-14.

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many difficulties encountered by unit banks and the necessity for developing a more adequate and convenient banking system, many were encouraged in the past few years to look upon branch banking as a possible means of solving some of these basic banking problems. Realization that small banks would find it increasingly difficult to obtain new capital, and also to use such capital profitably even if it was found, increased and intensified the interest in branch banking. Despite the great progress which has been made in this direction, there are still many legal barriers and other obstacles which must be overcome before branch banking can be extended to certain parts of the United States on a statewide basis. Such progress will be further delayed by sincere doubts as to the desirability of branch banking and by open opposition to it. The development seems inevitable in this country but it will probably be slow and gradual. . . .

There are still many opponents to this movement and the advocates of branch banking have not themselves agreed on the area or geographical basis or limitations for branches, but this is a matter of no great moment provided the area is large enough to permit wide diversification of portfolios.

Nation-wide branch banking is not necessary to obtain practically all the advantages of the system, although certain logical arguments may be made in favor of such a basis. The first logical step in developing a branch system for the country as a whole would be to provide for state-wide branches, even though it be necessary later to widen the area or base when experience had demonstrated the need for a further extension of branch banking facilities in the United States.

It is generally accepted by bankers and students of banking that there is a world-wide movement toward banking concentration. It is evidenced in this country by the growth of branch banking, by the large number of bank mergers and consolidations, by the increasing size of the unit bank, by the development of group and chain banking, and by the declining number of banks as well as the decreasing number of applications for new banks.

The increasing participation of the federal government in banking and finance clearly indicates that our financial structure is and has been undergoing fundamental changes of a far-reaching character. Branch banking is only a part of this movement. It will not, if adopted on a wide geographical basis, solve all our banking difficulties. Neither will any other one remedy, but branch banking will help

to solve some of the problems which must be considered if we are to have in the future a banking system that is adequate, safe, and convenient. . . .

MOBILITY OF BANK FUNDS UNDER BRANCH BANKING

Owing to the lack of experience by bankers in operating branches on a wide geographical basis, it is not easy to compare statistically the degree of mobility of bank funds under unit and branch systems. However, the organizational setup of branch systems gives the branch system certain advantages. The centralization of control in a head office, together with regional offices, advisory or local boards and branch managers, brings about a certain standardization of operations that facilitates the shifting of funds from place to place by means of the head office management. Under similar conditions the unit bank, especially the smaller ones, must rely on correspondent relationships to shift funds from areas having a surplus to those facing a scarcity.

The branch organization can afford a more extensive and expert group of officers and employees, which, in turn, makes for a broader knowledge of trade and commerce and its needs and thus is in a position to render a more prompt and adequate service. The branch system has a greater unity of administration, which reacts favorably in assembling or collecting deposits and tends to create greater uniformity also in interest rates.

Another important feature is the ability of the head office to handle largely the investment work of the several branches and thus facilitate the placing of funds where they will render the largest return commensurate with safety. Funds not needed in one locality can be shunted to other places where they are needed and where the bank will be able to realize a higher rate of return than is generally possible in the larger financial centers or money markets.

Branch banking should simplify the problem of handling, shifting, and maintaining adequate reserves. There are decided advantages in the handling of funds in this way. It tends to result in a more economic use of funds from the point of view of banks as well as to supply funds to smaller localities where there is a shortage. Finally, it will, if properly and most economically handled, reduce the concentration of funds in the larger metropolitan centers and work toward a decentralization of bank funds—just the opposite of what

has usually happened under unit banking with its extensive system of correspondents.

LENDING UNDER BRANCH BANKING

The critics of branch banking argue that borrowers are not served so promptly or satisfactorily under a branch system as under a unit system of banking, that there is no local board of directors, that the loan policies are determined by the head office, that the local manager has little independence of action, that a longer time is generally required to get a loan approved, and that the transaction is conducted in a purely impersonal manner. On the other hand, it is claimed that the unit banker is in close touch with the local borrower and his problems and can render a more prompt and sympathetic service.

In reply it is fair to say that the branch managers are generally in a position to serve their customers promptly except for applications for large loans which may be referred to a district or the head office for final approval. The same principle is followed, however, by the unit bank in the case of large loans which require the approval of two or more officers, of the loan committee, or of the board of directors before the funds are actually advanced. In any event the manager will expedite all loans as rapidly as possible, since the success of the branch as well as his own personal welfare will depend upon a prompt and efficient service.

In principle there is no fundamental difference in the credit policies and the granting of loans between a unit and a branch bank even though the problems are somewhat more complex for the branch system since this system must be adapted to function throughout a large number of widely separated offices. In both cases the credit policy will be determined by the board of directors and the executive officers, and in either case the risk must be analyzed and the advance granted upon the merits of the case, keeping in mind that safety is the most important principle to be observed by commercial banks.

Branch as well as unit banks are subject to certain loan limitations, such as the legal requirements. Moreover, the branch bank is generally larger than the unit bank and can grant larger loans than the small unit banks. The ease of transferring surplus deposits or funds from a branch having an excess to a community having a shortage facilitates the extension of these larger loans to individual borrowers

or to the local community as a whole. Powers must be delegated in both cases, but the branch lending powers are likely to be more liberal except in the case of large unit banks. The unit bank must maintain a certain ratio of loans to deposits whereas a branch may not be individually restricted to any such ratio, but be free to extend loans far in excess of its deposits, since many other branches may be lending much less than their total deposits. This gives the branch a decided advantage over the unit bank. The branch institution will normally secure a greater diversification, even if one branch does acquire a large volume of paper covering one particular industry or area or type of business. . . .

LOANS AND THE COMMUNITY

The best test of a commercial banking system is the extent to which it meets the need of its depositors, its borrowing customers, and the community which it serves. With regard to the community, the critics of branch banking maintain that a branch system with its absentee ownership and control not only fails to render the services needed but the management does not even understand the local community. How, they ask, could such a system serve adequately a community which it does not understand? The opponents of branch banking hold that in this relationship it is defective in many particulars, which may be briefly summarized as follows: it does not work for the benefit of the local community, the management lacks ability to adjust itself to local needs, funds are drained off to the large financial centers, it leads to concentration and monopoly, the services are impersonal, and lastly it is not a pioneering system.

In reply to these critics it should be emphasized that such criticisms are not heard for the most part in those countries which have adopted a wide system of branch banking. It is generally agreed that the branch manager and the head office control must be sympathetic to local needs if the branch is to be made a profitable office. Its record is a test of the manager's ability and personal success. Frequent visits by officials from the head office will do much to keep the institution in touch with local conditions.

The "drain-the-community" argument against branch banking overlooks the fact that experience has shown that unit banks have tended to send a larger volume of funds to metropolitan centers to be loaned at low interest rates than have branch banks. Where surplus funds exist, the branch bank is better organized to transfer

these funds to other localities where they are needed and where the interest rate is likely to be higher than in the money market centers. Just why unit bankers claim that branch banking would tend to concentrate bank funds in the large cities is not clear in view of the past history of unit banking and its record of shifting funds through inter-bank balances to the reserve and central reserve cities. . . .

There does not appear to be any conclusive arguments to show that the branch bank is not able to render all the services that are possible under a unit system. In addition it is in a position to render services which cannot be provided by a small unit bank, as for example trust business. It can and does tend to reduce interest rates and thus serve the community at a lower cost to the borrower. The branch bank can legally and economically make larger loans in the community than the small unit bank. It is in a position to establish and maintain branches in smaller places than those in which it is possible to operate profitably a small unit bank.

BANKING SERVICES: DEPOSITS

Unit and branch banks render similar services to depositors: both provide current checking and savings accounts, offer the same deposit facilities, and impose similar charges for certain types of service. Branch institutions may offer additional advantages such as cashing checks at other branches, facilitating the use of traveler's checks within the system, reducing the cost of exchange charges by clearing the checks through the branches and by building up a more efficient and prompt service for handling checks on distant points.

The most important advantages offered by a branch bank involve certain factors underlying or closely related to bank deposits rather than with the services rendered directly to depositors. These advantages are realized in part by a more direct clearing and exchange system, by greater diversification of bank assets, and by more effective means of transferring bank funds to localities where they are most needed. These and other factors strengthen the banking system and improve the general position of the depositors by affording them a protection which would otherwise be lacking. The branch system can carry its funds at more strategic points than in reserve cities and thus make them available in places where they can be used most advantageously from a business point of view. The head office can easily transfer funds to other points where they can be used more

profitably. The problem of interbank deposits is solved more easily by branch banking than under a unit system.

The branch bank can afford a more adequate service by locating its branches in places which could not support even a small unit bank with its larger capital and overhead requirements. If the branch proves to be a success, it can be as large as the volume of business requires. If experience should demonstrate that the community does not have or cannot develop a sufficiently large volume of business to warrant a branch or office, it can be closed with a minimum outlay to the bank and the sum would be much less than that required to test out the field by a unit bank, which would probably not be retired until it had failed, with loss to depositors and the community, whereas no such loss arises when a branch is voluntarily closed. Moreover, some communities may be able to support a branch or office for a period of time and then find that the volume of business is shifting or declining to such an extent that the operation of the branch is no longer warranted. Under such circumstances the local branch can be closed or moved to another place where its services are required. In other words, it is more economical to supply a maximum of convenience and service to depositors by branch banking than by unit banks. The number of branches can be varied in number and location to meet the needs of a growing or changing business community.

By carefully locating the offices, by proper diversification of assets and adequate head office supervision and management, the branch system can offer greater safety to depositors, assuming able and conscientious management in both cases. Bank failures in branch banking countries, such as England and Canada, have been far less severe during the past two or three decades and the losses to depositors, small indeed as compared with those suffered by American depositors of failed banks. More uniform facilities can be made available than unit banks can supply, operating as they do under laws varying from state to state.

BANKING SERVICES: CUSTOMERS

The problem of the bankless town is not new. It has existed in this country from colonial days and will continue in one form or another in the future. The important question is: Has the banking system met or failed to meet this problem in the most effective way? Of course there are many small communities that cannot afford a

separate banking office regardless of whether it is a bank or a branch office, but as many should be served as is possible consistent with costs involved. Under a strictly unit banking system these conditions can be fulfilled only by the creation of a large number of banks, many of which must be small by the very nature of the business to be financed. In this country, where unit banking has generally prevailed, the number of banking offices per capita is much less than in England and Canada where branch banking is accepted as the normal method of providing banking services for the smaller localities. Generally speaking, there are greater distances between banking offices in the United States than in Canada, and this fact increases the cost of securing banking services to the public.

The relative scarcity of banking offices in this country may be accounted for by a number of factors, the most important of which are the following: First, capital requirements, though seemingly small, are too large in relation to the potential volume of business available for many places. Second, the cost involved in operating small banks is too large in view of the possible income to be derived from existing customers. The large number of bank mergers and bank failures over the past two decades has substantially reduced the number of banks and increased the number of bankless towns. The present trend in banking in this country points definitely to a further decline in the number of unit banks from these two causes, especially through bank mergers.

One result of this bankless town situation has been the adoption of substitutes of one kind or another. These substitutes have varied all the way from the provision of local exchange offices for cashing checks to the establishment of other corporations with small amounts of capital and designed to offer certain facilities of a financial character. In a number of states, cashier windows or paying and receiving stations have been opened, as for example in Iowa, Wisconsin, North Carolina, Arizona, and other states. In South Carolina cash depositories—small institutions with a capital stock as little as \$2,500—have been organized to accept deposits and cash checks. They do not generally offer adequate banking facilities for the borrower. In Arkansas the co-operative banks are used in some communities to provide a limited type of financial service. They may organize with a capital of \$300 or more. In Nebraska the credit unions have taken on some of the functions of commercial banks. In a few states, as for

example Nebraska and Minnesota, capital requirements have been reduced to \$10,000 in an effort to encourage the establishment of a larger number of banking offices.

These substitutes for banks offer some relief to the otherwise bankless town, but for the most part they are totally inadequate to provide a complete commercial banking service. At best they can be regarded as only temporary makeshifts, and for the most part are quite unsatisfactory for that. The branch office offers the greatest possibility and, in fact, is able to give about all that can be expected in the way of service in many places. If these many communities are to be adequately served by responsible institutions, it must be done by large banks through the establishment of branches. No doubt a limited number of the bankless towns could support a small successful unit bank but it must be judged that for the most part that method will not work in the long run. Under existing legislation in a number of states the establishment of branches is prohibited and unless the law is modified in these states businessmen and others located in bankless towns in such states must continue in the future to go to neighboring towns or cities for their banking services. It is apparent that after all has been done that is feasible there will still remain a large number of places where there will be no banking office, regardless of the type of banking adopted.

THE 100% MONEY PROPOSAL ¹

IRVING FISHER ²

The late Irving Fisher here discusses the nature of 100% money, claiming for his proposal such advantages as: no bank runs, fewer bank failures, reduction of the government debt, a simpler money and banking system, and the elimination of periodic inflation and deflation.

INTRODUCTION

In the United States, as in a few other countries, most of our bills are paid by check—not by money passing from hand to hand.

¹ This selection is reprinted from Irving Fisher, *100% Money*, New Haven: The City Printing Company, 1945, pages 3-14 and 18-20.

² Irving Fisher (1867-1947) was sometime professor of economics in Yale University.

When a person draws a check, he draws it against what he calls "the money I have in the bank" as shown by his deposit balance on the stub of his check book. The sum of all such balances, on all such stubs in the whole country, i.e. all checking deposits, or what we ordinarily think of as the "money" lying on deposit in banks and *subject to check*, constitutes the chief circulating medium of the United States. This I propose to call "check-book money" as distinct from actual cash or "pocket-book money." Pocket-book money is the more basic of the two. It is visible and tangible; check-book money is not. Its claim to be money and to pass as if it were real money is derived from the belief that it "represents" real money and can be converted into real money on demand by "cashing" a check.

But the chief practical difference between check-book money and pocket-book money is that the latter is bearer money, good in anybody's hands, whereas check-book money requires the special permission of the payee in order to pass.

In 1926, a representative year before the great depression, the total check-book money of the people of the United States, according to one estimate, was 22 billion dollars, whereas, outside of the banks and the United States Treasury, the pocket-book money—that is, the actual physical bearer money in the people's pockets and in the tills of merchants—amounted, all told, to less than 4 billion dollars. Both together made the total circulating medium of the country, in the hands of the public, 26 billion dollars, 4 billions circulating by hand and 22 by check.

Many people imagine that check-book money is really money and really in the bank. Of course, this is far from true.

What, then, is this mysterious check-book money which we mistakenly call our "money in the bank"? It is simply the bank's *promise to furnish* money to its depositors when asked. Behind the 22 billions of checking deposits in 1926, the banks held only some 3 billions in actual money. The remaining 19 billions were assets other than money—assets such as the promissory notes of borrowers and assets such as Government bonds and corporation bonds.

In ordinary times, as for instance in 1926, the 3 billions of money were enough to enable the banks to furnish any depositor all the money or "cash" he asked for. But if *all* the depositors had demanded cash at one and the same time, the banks, though they could have gotten together a certain amount of cash by selling their other assets, could not have gotten enough; for there was not enough cash in

the entire country to make up the 22 billions. And if all the depositors had demanded *gold* at the same time, there would not have been enough gold in the whole world.

Between 1926 and 1929, the total circulating medium increased slightly—from about 26 to about 27 billions, 23 billions being check-book money and 4 billions, pocket-book money.

On the other hand, between 1929 and 1933, check-book money shrank to 15 billions which, with 5 billions of actual money in pockets and tills, made, in all, 20 billions of circulating medium, instead of 27, as in 1929. The increase from 26 to 27 billions was inflation; and the decrease from 27 to 20 billions was deflation.

The boom and depression since 1926 are largely epitomized by these three figures (in billions of dollars)—26, 27, 20—for the three years 1926, 1929, 1933.

These changes in the quantity of money were somewhat aggravated by like changes in velocity. In 1932 and 1933, for instance, not only was the circulating medium small, but its circulation was slow—even to the extent of widespread hoarding.

If we assume that the quantities of circulating medium for 1929 and 1933 were respectively 27 and 20 billions and that its turnover for those years was respectively 30 and 20, the total circulation would be, for 1929, $27 \times 30 =$ over 800 billion dollars and, for 1933, $20 \times 20 = 400$ billion dollars.

The changes in quantity were chiefly in the deposits. The three figures for the check-book money were, as stated, 22, 23, 15; those for the pocket-book money were 4, 4, 5. An essential part of this depression has been the shrinkage from the 23 to the 15 billions in check-book money, that is, the wiping out of 8 billions of dollars of the nation's chief circulating medium which we all need as a common highway for business.

The shrinkage of 8 billions in the nation's check-book money reflects the increase of 1 billion (i.e. from 4 to 5) in pocket-book money. The public withdrew this billion of cash from the banks and the banks, to provide it, had to destroy the 8 billions of credit.

This loss, or destruction, of 8 billions of check-book money has been realized by few and seldom mentioned. There would have been big newspaper headlines if 8 thousand miles out of every 23 thousand miles of railway had been destroyed. Yet such a disaster would have been a small one compared with the destruction of 8 billions out of 23 billions of our main monetary highway. That destruction of 8 billion

dollars of what the public counted on as their money was the chief sinister fact in the depression from which followed the two chief tragedies, unemployment and bankruptcies.

The public was forced to sacrifice 8 billion dollars out of 23 billions of the main circulating medium which would not have been sacrificed had the 100% system been in use. And, in that case . . . there would have been no great depression.

This destruction of check-book money was not something natural and inevitable; it was due to a faulty system.

Under our present system, the banks create and destroy check-book money by granting, or calling, loans. When a bank grants me a \$1,000 loan, and so adds \$1,000 to my checking deposit, that \$1,000 of "money I have in the bank" is new. It was freshly manufactured by the bank out of my loan and written by pen and ink on the stub of my check book and on the books of the bank.

As already noted, except for these pen and ink records, this "money" has no real physical existence. When later I repay the bank that \$1,000, I take it out of my checking deposit, and that much circulating medium is destroyed on the stub of my check book and on the books of the bank. That is, it disappears altogether.

Thus our national circulating medium is now at the mercy of loan transactions of banks; and our thousands of checking banks are, in effect, so many irresponsible private mints.

What makes the trouble is the fact that the bank lends not money but merely a promise to furnish money on demand—money it does not possess. The banks can build upon their meager cash reserves an inverted pyramid of such "credits," that is, check-book money, the volume of which can be inflated and deflated.

It is obvious that such a top-heavy system is dangerous—dangerous to depositors, dangerous to the banks, and above all dangerous to the millions of "innocent bystanders," the general public. In particular, when deflation results, the public is deprived of part of its essential circulating medium through which goods change hands.

There is little practical difference between permitting banks to issue these book credits which perform monetary service, and permitting them to issue paper currency as they did during the "wild cat bank note" period. It is essentially the same unsound practice.

Deposits are the modern equivalent of bank notes. But deposits may be created and destroyed invisibly, whereas bank notes have to be printed and cremated. If eight billion bank notes had been cre-

mated between 1929 and 1933, the fact could scarcely have been overlooked.

As the system of checking accounts, or check-book money, based chiefly on loans, spreads from the few countries now using it to the whole world, all its dangers will grow greater. As a consequence, future booms and depressions threaten to be worse than those of the past, unless the system is changed.

The dangers and other defects of the present system . . . [can] be discussed at length. . . . But only a few sentences are needed to outline the proposed remedy, which is this:

THE PROPOSAL

Let the Government, through an especially created "Currency Commission," turn into *cash* enough of the assets of every commercial bank to increase the cash reserve of each bank up to 100% of its checking deposits. In other words, let the Government, through the Currency Commission, issue this money, and, with it, buy some of the bonds, notes, or other assets of the bank or lend it to the banks on those assets as security. Then all check-book money would have actual money—pocket-book money—behind it.

This new money (Commission Currency, or United States notes), would merely give an all-cash backing for the checking deposits and would, of itself, neither increase nor decrease the total circulating medium of the country. A bank which previously had \$100,000,000 of deposits subject to check with only \$10,000,000 of cash behind them (along with \$90,000,000 in securities) would send these \$90,000,000 of securities to the Currency Commission in return for \$90,000,000 more cash, thus bringing its total cash reserve up to \$100,000,000, or 100% of the deposits.

After this substitution of actual money for securities had been completed, the bank would be required to maintain *permanently* a cash reserve of 100% against its demand deposits. In other words, the demand deposits would literally be deposits, consisting of cash held in trust for the depositor.

Thus, the new money would, in effect, be *tied up* by the 100% reserve requirement.

The checking deposit department of the bank would become a mere storage warehouse for bearer money belonging to its depositors and would be given a separate corporate existence as a Check Bank. There would then be no practical distinction between the checking

deposits and the reserve. The "money I have in the bank," as recorded on the stub of my check book, would literally *be* money and literally be *in the bank* (or near at hand). The bank's deposits could rise to \$125,000,000 only if its cash also rose to \$125,000,000, i.e. by depositors depositing \$25,000,000 more cash, that is, taking that much out of their pockets or tills and putting it into the bank. And if deposits shrank it would mean that depositors withdrew some of their stored-up money, that is, taking it out of the bank and putting it into their pockets or tills. In neither case would there be any change in the total.

So far as this change to the 100% system would deprive the bank of earning assets and require it to substitute an increased amount of non-earning cash, the bank would be reimbursed through a service charge made to its depositors—or otherwise. . . .

ADVANTAGES

The resulting advantages to the public would include the following:

1. There would be practically no more runs on commercial banks;
because 100% of the depositors' money would always be in the bank (or available) awaiting their orders. In practice, less money would be withdrawn than now; we all know of the frightened depositor who shouted to the bank teller, "If you haven't got my money, I want it; if you have, I don't."
2. There would be far fewer bank failures;
because the important creditors of a commercial bank who would be most likely to make it fail are its depositors, and these depositors would be 100% provided for.
3. The interest-bearing Government debt would be substantially reduced;
because a great part of the outstanding bonds of the Government would be taken over from the banks by the Currency Commission (representing the Government).
4. Our Monetary System would be simplified;
because there would be no longer any essential difference between pocket-book money and check-book money. All of our circulating medium, one hundred per cent of it, would be actual money.

5. Banking would be simplified;
at present, there is a confusion of ownership. When money is deposited in a checking account, the depositor still thinks of that money as his, though legally it is the bank's. The depositor owns no money in the bank; he is merely a creditor of the bank as a private corporation. Most of the "mystery" of banking would disappear as soon as a bank was no longer allowed to lend out money deposited by its customers, while, at the same time, these depositors were using that money as *their* money by drawing checks against it. "Mr. Dooley," the Will Rogers of his day, brought out the absurdity of this double use of money on demand deposit when he called a banker "a man who takes care of your money by lending it out to his friends."

In the future there would be a sharp distinction between *checking* deposits and *saving* deposits. Money put into a checking account would belong to the depositor, like any other *safety* deposit and would bear no interest. Money put into a savings account would have the same status as it has now. It would belong unequivocally to the bank. In exchange for this money the bank would give the right to repayment with interest, but *no checking privilege*. The savings depositor has simply bought *an* investment like an interest-bearing bond, and this investment would not require 100% cash behind it, any more than any other investment such as a bond or share of stock.

The reserve requirements for savings deposits need not necessarily be affected by the new system for checking deposits (although a strengthening of these requirements is desirable).

6. Great inflations and deflations would be eliminated;
because banks would be deprived of their present power virtually to mint check-book money and to destroy it; that is, making loans would not inflate our circulating medium and calling loans would not deflate it. The volume of the checking deposits would not be affected any more than when any other sort of loans increased or decreased. These deposits would be part of the total actual money of the nation, and this total could not be affected by being lent from one person to another.

Even if depositors should withdraw all deposits at once, or should pay all their loans at once, or should default on all of them at once, the nation's volume of money would not be affected thereby. It would merely be redistributed. Its total would be controlled by its sole issuer—the Currency Commission (which could also be given powers to deal with hoarding and velocity, if desired).

7. Booms and depressions would be greatly mitigated; because these are largely due to inflation and deflation.
8. Banker-management of industry would almost cease; because only in depressions can industries in general fall into the hands of bankers.

Of these eight advantages, the first two would apply chiefly to America, the land of bank runs and bank failures. The other six would apply to all countries having check-deposit banking. Advantages "6" and "7" are by far the most important, i.e. the cessation of inflation and deflation of our circulating medium and so the mitigation of booms and depressions in general and the elimination of *great* booms and depressions in particular. . . .

IN CONCLUSION

The 100% proposal is the opposite of radical. What it asks, in principle, is a return from the present extraordinary and ruinous system of lending the same money 8 or 10 times over, to the conservative safety-deposit system of the old goldsmiths, before they began lending out improperly what was entrusted to them for safe-keeping. It was this abuse of trust which, after being accepted as standard practice, evolved into modern deposit banking. From the standpoint of public policy it is still an abuse, no longer an abuse of trust but an abuse of the loan and deposit functions.

England effected a reform and a partial return to the goldsmiths' system when, nearly a century ago, the Bank Act was passed, requiring a 100% reserve for all Bank of England notes issued beyond a certain minimum (as well as for the notes of all other note-issuing banks then existing).

Professor Frank D. Graham of Princeton, in a statement favoring the 100% money plan, says of President Adams that he "denounced the issuance of private bank notes as a fraud upon the public. He was supported in this view by all conservative opinion of his time."

Finally, why continue virtually to farm out to the banks for

nothing a prerogative of Government? That prerogative is defined as follows in the Constitution of the United States (Article I, Section 8): "The Congress shall have power . . . to coin money (and) regulate the value thereof." Virtually, if not literally, every checking bank coins money; and these banks, as a whole, regulate, control, or influence the value of all money.

Apologists for the present monetary system cannot justly claim that, under the mob rule of thousands of little private mints, the system has worked well. If it had worked well, we would not recently have lost 8 billions out of 23 billions of our check-book money.

If our bankers wish to retain the strictly banking function—loaning—which they can perform better than the Government, they should be ready to give back the strictly monetary function which they cannot perform as well as the Government. If they will see this and, for once, say "yes" instead of "no" to what may seem to them a new proposal, there will probably be no other important opposition.

SOCIALIZING THE CENTRAL BANK¹

G. D. H. COLE²

G. D. H. Cole here argues in favor of socializing the central bank on the grounds that the power of banks to create credit and to channel that credit into certain industries must be controlled in the public interest.

In the more advanced industrial countries, and especially in Great Britain, there has arisen in recent years an acute controversy over the question whether banking and financial institutions ought to be left in private hands or to be transferred to some form of public ownership and control. In Great Britain, where this controversy has been most acute, the demand for the socialisation of banking has come chiefly from those Socialists who see in a socialised banking

¹This selection is reprinted by kind permission of the publisher and author from G. D. H. Cole, *What Everybody Wants to Know About Money*, New York: Alfred A. Knopf, 1933, pages 390-400.

²George Douglas Howard Cole (1889-) is professor in All Souls College, Oxford, England, and an outstanding Fabian Socialist.

system an indispensable instrument both for the carrying through of any co-ordinated plan of industrial development, and for the extension of public ownership and control over productive industry. Banking, it is urged, is above all in the modern world the key industry which affects every other; for no industry can be carried on without adequate supplies of credit, and these the banks alone are under modern conditions able to provide. Accordingly, the banks have to a great extent in their hands not only to make credit in general cheap or dear, and scarce or abundant, but also to direct credit to one industry or firm rather than another, and so to cause or to prevent industrial expansion in this or that field. A national planning authority, if it were unable to exercise control over and through the banking system, would, it is urged, be wholly unable to make its will effective or to impose any coherent direction upon the general course of economic policy. For these reasons Socialists in Great Britain have come more and more of late years to the conclusion that the socialisation of the banking system is not merely a necessary part of any transition to Socialism, but that it must come at a very early stage in the process of transition, because the socialised banks will be among the most important instruments for effecting socialisation elsewhere, and meanwhile of pressing the policy of a Socialist Government upon industry as a whole.

The demand for some form of socialisation of banking has not, however, even in Great Britain, been confined entirely to Socialists. For a number of non-Socialists, including some who are bitter opponents of Socialism, have urged strongly the socialisation of the Central Bank. These non-Socialist advocates of banking reform are for the most part as strongly opposed to any public ownership or control of joint stock deposit banking as they are favourable to public ownership and control of the Central Bank. Their argument is that the control of the volume of credit, which is the most important factor in determining the level of prices, is effectively in the hands of the Central Bank, which is thus able to create conditions leading either to business expansion or to monetary stringency and trade depression. This power, it is said, the Central Bank in Great Britain, as in other countries, has been far too much disposed to wield not in the interests of national industry but rather in those of the money market and of a traditional doctrine of "sound" monetary policy. In the years since the war, the Central Banks have been for the most part pronouncedly deflationist; whereas industry in general has been

pressing as a rule for a more abundant supply of credit as a means to economic expansion. For these reasons some business men have joined the Socialists in advocating the socialisation of the Central Bank, in the hope that the bringing of it under the auspices of the State would enable its policy to be linked up more closely with the desires of the business world, and would make possible more effective pressure for credit expansion than can be exerted upon the Bank of England to-day. These non-Socialist advocates of socialisation are, however, usually determined to exclude, if they can, any form of actual governmental or Parliamentary control over the working of the socialised Central Bank. They would prefer it to be brought under the control of a statutory corporation, dominated by business men, and therefore more regardful of the needs of industry than of the claims of the money market, or perhaps of a Chancellor of the Exchequer intent upon bringing down interest rates with the object of facilitating the conversion of the National Debt.

There is, of course, nothing at all revolutionary or socialistic in the idea that a country's Central Bank should be either a national institution or subject to some form of public control. The Federal Reserve System of the United States was set up by the Federal Reserve Act of 1913 as a publicly controlled and in the last resort publicly administered institution. The Federal Reserve System is in effect, and has been from the start, socialised, though representatives from the private banking and business communities are called upon by the public authority to take a share in its actual administration. The Federal Reserve Board is a Government Board consisting of Government nominees; and in the Federal Reserve Banks the element of control exerted from the centre is sufficiently large to give them the essential character of public institutions. They are, moreover, in effect non-profit-making, or at any rate their policy is definitely directed by considerations of public advantage and not to the making of profits in any direct sense . . .

It has, however, commonly been insisted, as new Central Banks have been established or old one reorganised all over the world during the years since 1918, that direct governmental interference with their operations should be excluded to the greatest possible extent. The international bankers, who have been largely responsible for drawing up the constitutions of the new Central Banks, have been throughout insistent on this point, especially in the case of the needier countries; for it has been held to be indispensable to deprive

the needy Governments of the means of using their Central Banks as agencies for meeting their expenses by the printing of additional currency or by the mere inflationary expansion of credit. For this reason international bankers, as a condition of helping in the establishment of the Central Banks in the needier countries, have usually insisted that there shall be drastic restrictions, incorporated in the national legislation, upon the right of these banks to issue currency, or even to create credits beyond a certain proportion to their reserves. These regulations have indeed to some extent been broken down in consequence of the world slump; but in the creation of the new structure of post-war central banking what was uppermost in the minds of those international financiers who were chiefly responsible for bringing the new institutions into being was the desire to hedge round the powers of the new banks so as to prevent especially those forms of inflation which it was feared would result from giving the Governments unfettered control over the workings of the banking system.

In spite of these precautions the degree of governmental control over Central Banks is in practice very great, above all in those countries which have had to face the most difficult financial conditions, owing either to their tribulations as debtors or to the unsoundness of their own banking structure. Thus, as we have seen . . . the incidence of the crisis upon Germany compelled the German Reich not only to interfere in the affairs of the Reichsbank, but also to come to the assistance of the ordinary deposit banks, establish stringent control over them, and in some cases guarantee their depositors and equip them with fresh liquid resources in order to enable them to carry on at all. Under somewhat different conditions the Federal Government in the United States had, in the banking crisis of the early months of 1933, to institute a universal system of supervision and control over the many thousands of banking institutions in America. Moreover, wherever control of the foreign exchanges is instituted under the auspices of the Government, as it has been over a large part of the world during the slump, this control involves drastic interference with the activities of the ordinary banks, and while it may be exercised by the Government through the instrumentality of the Central Bank, necessarily requires constant supervision of what is done through the Central Bank by the Government itself.

Indeed, monetary and governmental questions have in the period

since the war been so interlinked in practically every country that a separation between the powers of the Government and the functions of the banking system has been altogether impossible. More than once it has become plain that the only real alternative to Government control of the banking system has been, not the separation of the financial and political powers, but rather the control of the political by the financial authority. The British Labour Government of 1931 is by no means the only Government that has been brought down since the war by the action of the financial world. For example, the same fate overtook the short-lived Socialist Government of Norway, and bankers' pressure upon Governments has been a familiar feature of the world's history . . . It is no easier for banks and Governments to separate their spheres of jurisdiction today than it was in Medieval Europe for Pope and Emperor to live side by side without clashings of authority.

In these circumstances the question appears nowadays to many people to be not whether bankers ought to be allowed to carry on their own business without public interference, but whether Governments or banks are to have the last word in matters in which they are both inevitably concerned. Above all, this view has come to be widely held as monetary questions have loomed larger and larger in men's minds among the causes of world prosperity and depression. For if men feel, rightly or wrongly, that the good or ill fortunes of themselves, or their class or group, and of the community in which they live, are bound up with the policies pursued by the banks, they are certain to assert with increasing vehemence their right to the ultimate control of financial affairs, and to be acutely suspicious of what is being done by the banks when, for any reason within or without the bankers' control, matters are all over Europe going wrong.

Before the war all over Europe the vast majority of people took the banking system for granted . . . In the post-war world this is no longer possible. For since the war, in every country, questions of banking policy have come to be issues of public controversy in which Government and citizens are inevitably involved and have to take sides. It is still difficult to say in Great Britain whether the Treasury dominates the Bank or the Bank the Treasury, but it is quite clear that any large divergence of opinion between the two would have immediate political and financial repercussions over a very wide field. In America too it may have been doubtful . . .

whether the final control of financial policy rested with the Government or in effect with the officers of the Federal Reserve System; but Mr. Roosevelt seems to have resolved this conundrum during the opening days of his period of office as President of the United States. Whatever may happen in the future, there is no doubt that at the present time American financial policy is controlled by the Administration and not by the bankers.

Round what points does the undoubtedly strong desire on the part of the public to secure some means of influencing banking policy revolve? Above all, it concerns the question of the degree of liberality which banks, and above all Central Banks, ought to exercise in the granting of credits, and the policy which they ought to pursue in influencing the level of internal prices. These two questions are of course to a great extent the same. In periods of economic activity industrialists are always anxious to secure extended credits from the banks, and inclined, if any steps are taken by the banks to restrict credit, to hold the bankers responsible for damping down production and thus preventing prosperity from advancing as fast as the available productive resources would allow. The bankers, on the other hand, argue that the expansion of credit can at most be desirable only up to that point at which the available productive resources have been brought into full use, and that any expansion beyond this point is bound to be merely inflationary, and to react upon prices without any proportionate increase in the volume of production.

But the bankers are in a further difficulty, for they have in practice found it impossible hitherto to expand credit up to a point which will ensure the full use of productive resources without a great deal of the additional credit created with this object escaping out of the industrial into the financial circulation, so as to cause a speculative boom in stock market prices and in real estate before the legitimate claims of industrialists for advances have been fully satisfied. The bankers, even when they recognise as desirable the object of securing the full utilisation of the available productive resources, are thus torn between their recognition that this is desirable and their fears of provoking a speculative boom which will speedily pass beyond their control and lead in due course to conditions which will compel them sharply to contract credit, and thus bring about a slump equally difficult to check at the appropriate point. For this reason bankers often hold that it is highly undesirable for the bank-

ing system to be brought in any way under the control either of Governments, which are bound to be amenable to public pressure, or of business men engaged in industry and commerce, who are likely to desire an undue expansion of credit in prosperous times and thus to create the conditions leading to an inflationary boom. Bankers often hold that they, working with their traditional knowledge and sense of responsibility, are far more likely to preserve an even balance than either Governments, at the mercy of public clamour, or industrialists, intent on quick and easy profits.

The reply that is usually made to the bankers is that they are neither so disinterested nor so all-wise in their management of monetary affairs as they are apt to suppose. For the bankers, especially where, as in London, they have connections with the financial houses, are certainly interested persons, though their interests may diverge from those of the business world as a whole. Nor does the recent history of world monetary policy suggest that bankers are to be trusted without question, even apart from their pursuit of the special interests of the financial classes. For they seem to have divided themselves in practice into two groups, those who have attempted under the very different conditions of the post-war period to impose almost unchanged the financial policies which were in force in the pre-war world, at the cost of involving countries in deflationary measures and widespread unemployment, and those who have attempted to apply new theories of monetary management with the idea of stabilising the price-level. Neither of these policies has in fact worked out satisfactorily. Banking deflation in Europe has been a powerful factor in accentuating depression, while the attempt to stabilise prices in the United States in the years before 1929 does not look well now that it is seen in the light of subsequent economic happenings.

The world's difficulty to-day is that it can safely put its trust neither in the traditional methods of banking policy nor in such new experiments in monetary manipulation as have been actually made. Previous [reading] . . . should have sufficed to convince any reader that, whether banks are to be controlled by private persons and corporations or by Governments and public corporations under Government control, it will be by no means an easy matter to discover either correct rules for their working or persons who can be relied upon to administer them efficiently and to the general satisfaction.

Nevertheless, as it is now generally recognised that the way in which the banking system is controlled and directed, and the policies applied through it, are of absolutely vital moment to the citizens of every State, the demand for public control over the operations of the banking system is likely to increase. For neither democracies nor autocracies will under modern conditions be prepared to let the banks go their own way without attempting to intervene in their operations. Democracies will press for public control of the financial system in order to influence the prosperity of industry and the possibility of progressive programmes of social reform, or perhaps in order to carry through large-scale changes making in the direction of Socialism; but autocracies on the Fascist model are not likely to be behindhand in exerting public control over the banking system, for the "totalitarian" State envisaged by the followers of Mussolini and Hitler is no more able to dispense with the control of the banks than the Communist State of Russia or the Socialist States envisaged by the Labour movements of Western Europe. . . .

As we have seen, Central Banking is already under a large measure of State control. Technically, complete socialisation of the world's Central Banks is a quite simple matter, though in practice it would rouse so much opposition as to involve many difficulties. For there is in each country only one Central Bank, or at most, as in the United States, a number of banks bound together closely into a single system. It would be technically quite easy to transform these Central Banks, where they are at present in the form of private organisations, into public institutions under collective ownership and control. No one, I think, proposes that they should be simply transformed into Civil Service Departments like the other departments of State. Wherever schemes for the socialisation of Central Banking have been brought forward they have contemplated the future conduct of the Central Bank as a publicly owned corporation, using a capital owned by the State and administered by persons nominated in the last resort by the State; but they have also made provision for a specialised institution through which the control is to be actually carried on. Thus, if the Bank of England were to be socialised, it would be quite a simple matter in a technical sense to take over, presumably with compensation, its existing share capital, and to replace the present Board of Governors by a new Board nominated by the Government. This, however, is only the beginning of the problem; for the question at once arises whether the new Board

that the Government is to nominate ought to consist simply of persons chosen by the Government at its own discretion, or rather of representatives appointed on the nomination of various groups and sections within the community.

The original scheme put forward by the British Labour Party for the socialisation of the Central Bank envisaged the appointment of a representative Board, consisting of nominees formally ratified by the Government, but chosen in effect by the recognised organisations of employers and merchants, workmen and consumers. The Board was thus to be made far less representative of the money interest, and far more representative of the interests of industry and commerce, than the present privately appointed Board has ever been. But the Labour Party seems now to have departed from this principle, and to hold that it would be better to have a Board consisting of persons appointed by the Government on grounds of personal competence and suitability rather than of representatives of distinct and possibly divergent economic interests. For it is held, as I think rightly, that a representative Board, built up on the basis of representing a number of distinct and clashing interests, would be most unlikely to administer efficiently the affairs of the Bank, or to be strong enough and well enough equipped with financial knowledge to pursue a clear and consistent course amid the many complications of current financial and economic affairs. A socialised Central Bank will need to be a strong bank, run by persons adequately equipped with financial knowledge, and able, however much they are under the ultimate control of the Government, to tender to the Government sound financial advice. A representative Board based on divergent interests can on this ground be definitely excluded as a satisfactory solution of the problem of Central Banking, either under private or under public ownership.

If, however, a socialised Central Bank is to be conducted under the auspices of persons appointed by the Government for their technical competence and personal suitability rather than as the nominees of divergent interests, it still remains an open question how great and how detailed the control actually exerted by the Government over the bank's operations ought to be. This is in practice a question which cannot be settled by any paper constitution. It will inevitably have to be worked out in the light of actual experience. Broadly, however, it seems desirable that, in the first place, the ultimate control of matters of high policy should rest with the Government,

but the detailed administration of this policy be left free from Government interference in the hands of those appointed to control the affairs of the Bank. In the second place, it seems desirable that the Government, having the right of appointing the Board, should have also the right of dismissal—the right, that is, to change at any time the persons placed in control of the administration. Thirdly, it seems desirable that there should be a Minister of State responsible for answering in Parliament for the affairs of the Bank, but that Parliamentary discussion of financial matters should not usually range over points of detail, but should be confined to matters of policy. This could doubtless be secured on much the same lines as it has been secured already in Great Britain in the case of the British Broadcasting Corporation, or to some extent in that of the Central Electricity Board. Fourthly, it seems clear that the affairs of any socialised Central Bank will have to be closely coordinated with those of any other economic authorities acting under Government control in pursuance of a co-ordinated public economic plan. . . .

A socialised Central Bank will obviously be, apart from its activities as the Government's own banker, the authority for regulating the general volume of credit available for use within the banking system, and therewith for influencing the level of prices within the community and for the management of the foreign exchanges. For . . . wherever a Central Bank is in effective existence, the control of the general volume of credit rests for the most part with it, and not with the deposit banks or the other financial agencies. If, therefore, a Central Bank is socialised and so brought under public control, it is obvious that the community will henceforth be responsible—and that the Government, as the representative of the community, will be held responsible by the public—for whatever is done in influencing both the plenty or the scarcity of the national supply of money and the rate at which that money can be exchanged for the currencies of other countries.

SECTION IX

Business Cycles and Price Levels

AS THE "GREAT ILLUSION" OF THE 20'S GAVE WAY to the "great despair" of the 30's a bewildered humanity began to recognize the outstanding problems of our generation: the threat of recurring wars and periodic depressions. People gradually began to comprehend the chain of events that led from depression and unemployment to dictatorship and aggression. They began to realize that the problem of war and the dilemma of the business cycle were perhaps but two aspects of one major challenge—the challenge of insecurity.

The history of the last two decades has taught us that alternate periods of boom and bust leave in their wake misery and despair; that the failure of society to assure the full employment of men and machines (at remunerative levels of income) provides a favorable atmosphere for the rise of demons and false prophets; that these "messiahs" have the power to induce the suffering and disillusioned masses to part with their personal and political freedom in exchange for economic security; and finally, that these "messiahs" have fulfilled their promise of maintaining society's full use of resources by actively planning and preparing for war. The lessons of recent history, therefore, point to the need of eliminating—or, at least, mitigating—the sources of instability which eventually result in depressions, wars, and the destruction of free institutions.

The business cycle—as we have come to know it—is characterized by periodic alternations of prosperous and depressed trade, accompanied by pendular oscillations in the level of production, prices, income, and employment. When businessmen feel that increased activity on their part is likely to result in higher profits, they extend production, employ more men and machines, and thereby generate greater incomes into the hands of the community. When this income is spent, it becomes effective demand for goods and services, demand which tends to increase prices and thus serve as an incentive for further increases in production, employment, income, etc. On the other hand, when businessmen take a dim view

of future profit possibilities, production and investment activity is curtailed and a decline in the level of employment and income is initiated. This decline then tends to become cumulative in a downward direction just as the original stimulus to production was instrumental in starting an upward trend.

On this description of the business cycle there is substantial agreement among economists. The controversy which arises centers mainly around the *causes* of the business cycle and the remedial action which should be taken to abate or eliminate its undesirable effects. Some theorists argue that fluctuations are caused by essentially non-monetary factors: the weather, sun spots, crop failures, technological innovations, etc. Others believe that disturbances in the monetary sphere are responsible for the cycle: gold, the quantity of credit created by the banking system, the amount of savings supplied to finance capital goods production, etc. Still others—the so-called Keynesians—while basically monetary theorists, fall into a category of their own because of the vastly different policy conclusions implied in their analysis. They search for the true causes of the cycle in the peculiar relationship between the level of savings and investment. An outgrowth of this Keynesian thinking on the business cycle—the mature economy thesis—has already been presented in Section VI above.

It is important for us to understand the conflicting theories as to the causes of the business cycle, because on the diagnosis of the ailment is, in large part, dependent the prescription of a cure. Only if we understand the nature and origin of the cycle can we devise a wise social policy to eliminate its evils. Only then can we know whether, in case of a depression, to favor a reduction or an increase in wage rates; whether to encourage government spending or to oppose it; whether to permit “natural” or enforce “artificial” interest rates in the market.

The urgency of the problem should intensify our search for a solution, especially in view of the wide social and political ramifications of the general problem of insecurity. We must be better prepared than we were in 1929 should another major disaster befall us. We must be prepared to ward off a threatening flood by building a fleet of boats—regardless of their size, shape or method of construction; in short we must have *some* plan of action.

CHAPTER 21

The Non-Monetary Approach

INNOVATIONS AND THE BUSINESS CYCLE¹

JOSEPH A. SCHUMPETER²

Professor Schumpeter here holds that the various types of cyclical fluctuations are basically caused by the non-monetary phenomenon of industrial innovations.

Ever since, in the sixties of the past century, Clement Juglar definitely established the existence of wave-like movements which pervade economic life within the institutional framework of capitalist society, the work of finding, linking-up, measuring relevant fact, has been steadily progressing. Although much hampered by needless controversy and inadequate technique, this work has yielded results which, it is believed, need only be properly coordinated and developed in order to enable economics to offer a substantially satisfactory and reasonably exhaustive picture of the phenomenon, and thus to make what would certainly be its most immediately practical contribution to human welfare. Coordination is particularly necessary of the historical, statistical and analytical modes of approach which are each of them thwarted by that reluctance to cooperation incident to the differences in training, tastes and horizons of individual workers. The purpose of this paper is to explain the main features of an analytic apparatus which may be of some use in marshaling the information we have and in framing programs for further research.

OUTSIDE FACTORS

If we survey, for instance, the course of economic events in

¹ This selection is reprinted by kind permission of publisher and author from Joseph A. Schumpeter, "The Analysis of Economic Change," *The Review of Economic Statistics*, Volume XVII, No. 4, May, 1935, pages 2-10.

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England from the beginning of the French Wars in 1792, through the suspension of specie payments, the Peace of Amiens, the trade war with America, up to the crisis in 1809-1810, it becomes obvious that we could without any glaring absurdity account by political "disturbances" for all the fluctuations we observe in our material. . . . Common sense immediately suggests that here we have discovered an obviously important source of economic fluctuations. From the ubiquity of such events it follows that practically every economic fluctuation must be a historic individual and cannot be made amenable to explanation but by minute historical analysis of the innumerable factors actually at work in each case. In other words, in order to understand business cycles we must first of all acquire what may be termed historical experience of the way in which economic life reacts to such disturbances, and this is one of the reasons why every conquest of past fact is of paramount practical importance, in some respects of greater importance than additions to our stock of contemporaneous fact which can increase our knowledge over time only by infinitesimal steps. The statistical and analytical description of the various mechanisms of reaction (with a hope in our minds that we may ultimately get as far as to be able to measure the effects attributable to every such disturbance) seems thus to be the most urgent task before us. It should be observed in passing that for various reasons any influence acting on the economic process is practically sure to produce not a single dent but a wave-like motion extending over a longer time than it takes to reach the next disturbance, as well as, if it impinges on a particular spot, a vibration throughout the whole system. Moreover, with adaptation proceeding almost always with a lag and very often with reference to the rate of change of prices rather than to their absolute magnitude, our attempts at exact description are more than likely to result in expressions admitting of periodic integrals.

This being so, the question arises whether there are any fluctuations at all which arise out of the behavior of business communities as such and would be observable even if the institutional and natural framework of society remained absolutely invariable. Although disturbance of the kind glanced at and reaction thereto may in individual cases be much more important, yet the presence or absence of a fluctuation *inherent* to the economic process in time is practically and scientifically the fundamental problem and the only one to be considered here. In order to make headway with it, we shall

proceed as physical sciences do in those cases in which it is impossible actually to isolate a phenomenon by producing it in a laboratory: from our historic and everyday knowledge of economic behavior we shall construct a "model" of the economic process over time, see whether it is likely to work in a wave-like way, and compare the result with observed fact. Henceforth, therefore, we shall disregard not only wars, revolutions, natural catastrophes, institutional changes, but also changes in commercial policy, in banking and currency legislation and habits of payment, variations of crops as far as due to weather conditions or diseases, changes in gold production as far as due to chance discoveries, and so on. These we shall call *outside factors*. . . .

CYCLES, TRENDS, EQUILIBRIA, GROWTH, INNOVATION

If we study, say, the economic state of things in all countries in 1872 and behold the wild excesses of that boom, we shall have no difficulty in assigning very realistic meaning to the terms "want of balance" or "disequilibrium." Nor is it difficult, if we look at things one year after, to recognize that however much the then situation differed from that of 1872 it was similar to it in that it was about equally unbalanced. Again, if we analyze the course of events in, say, 1897, we may well sum up the result by speaking of a comparatively equilibrated state of things. This common sense distinction between comparatively balanced and comparatively unbalanced states of the economic system is of utmost importance for the description and measurement of cyclical phenomena. In order to bring out the exact skeleton of such observations we define: (Marshallian) *particular equilibrium* exists in an individual industry if this industry as a whole displays no tendency either to increase or decrease its output or to alter the combination of the productive factors it employs. *Aggregative equilibrium* exists if the sum total of receipts of business as a whole, expressed in current dollars, equals the sum total of costs similarly expressed and including as much profit as will induce everybody to keep on doing what he is actually doing. This kind of thing, which is compatible with plenty of disequilibrium as between industries and within industries, is the basic concept in Mr. Keynes' analysis of the monetary process. *General equilibrium* exists if every household and every firm in the domain under research is individually in a state of equilibrium in the sense of Leon Walras. It is only this last concept that matters for us. To give it

statistical meaning, we must link it up with certain points on the graphs of our time series. These we call "normal points." As in reality such states can never be perfectly realized we can be concerned only with states which are nearer to, or farther from, them than other states. Hence we further define: *neighborhoods of equilibrium* are time intervals in which normal points occur in the graphs of our time series excepting those which in that interval are deflected by a definite and provable individual circumstance. (The word "neighborhood" is therefore not used here in its strict mathematical sense.) Discussion of the question how we are to locate these neighborhoods cannot be entered upon in this article.

By "growth" we mean changes in economic data which occur continuously in the sense that the increment or decrement per unit of time can be currently absorbed by the system without perceptible disturbance. Increase of population, resulting in an increase of the supply of labor of at most a few per cent per year (historically an increase of three per cent per year is already high), is the outstanding example. If the factors which enter into this category were the only ones at work, there would be obvious economic meaning to the concept of trend and to its determination by least squares or other methods resting on similar assumptions. In what follows we shall, however, not deal with the problems arising out of mere growth, nor with the very complicated questions of their relation to the other types of factors involved in economic change. In fact we shall, for clearness' sake, disregard it altogether, which, as in the case of outside factors, does not imply any view about its importance.

It stands to reason, finally, that outside factors and growth factors do not exhaust the list of the influences which produce and shape economic change. Obviously the face of the earth would look very different if people, besides having their economic life changed by natural events and changing it themselves by extra-economic action, had done nothing else except multiply and save. If it looks as it does, this is just as obviously due to the unremitting efforts of people to improve according to their lights upon their productive and commercial methods, i.e., to the changes in technique of production, the conquest of new markets, the insertion of new commodities, and so on. This historic and irreversible change in the way of doing things we call "innovation" and we define: innovations are changes in production functions which cannot be decom-

posed into infinitesimal steps. Add as many mail-coaches as you please, you will never get a railroad by so doing.

It is a question of some interest why the old type of economist, Marshall included, should, while recognizing this element and taking account of it in special cases, yet have persistently refused to face it squarely and to build an analytic apparatus fully descriptive of its mechanism and consequences. For our purpose it is both necessary and sufficient to list innovation, however much it may be linked to the other two, as a third and logically distinct factor in economic change, and to submit the propositions: The kind of wave-like movement, which we call the business cycle, is incident to industrial change and would be impossible in an economic world displaying nothing except unchanging repetition of the productive and consumptive process. Industrial change is due to the effect of outside factors, to the non-cyclical element of growth, and to innovation. If there be a purely economic cycle at all, it can only come from the way in which new things are, in the institutional conditions of capitalist society, inserted into the economic process and absorbed by it. In fact, the cycle seems to be the statistical and historical form in which what is usually referred to as "economic progress" comes about. This is why any serious attempt at analytic and even at practical control of the business cycle must be an historical one in the sense that the key to the solution of its fundamental problems can only be found in the facts of industrial and commercial history.

PROSPERITY AND DEPRESSION

To simplify argument we will in this section make the hypothesis, presently to be discarded, that there is sense in speaking of only *one* "cyclical movement" in our material.

We can of course never expect to discover a definite date when the first cycle arose out of a state of perfect equilibrium, but it is essential, in order to avoid circular reasoning, to make our model describe such an event and, as far as historical and statistical description goes, to make it start from what has first to be identified as a neighborhood of equilibrium. We then get the picture of the system of economic quantities drawing away from this equilibrium or neighborhood under the impact of innovations which would supply, barring outside factors, the only possible "force." Let us visualize this by thinking of any of those booms in this country or in England which everyone would label as railroad booms. The new thing in this

case takes years to get into working order and still longer to exert its full effects on the location of industry and agriculture, agglomerations of population, the evolution of accessories and subsidiaries, and so on. During this time there would, in strict logic and if the preceding equilibrium had been a perfect one, be little or no increase in the stream of commodities and services (there may in fact be a *decrease* in the output of consumers' goods), while producers' and consumers' expenditures would increase in consequence of credit creation and in other ways. The realistic complement of this is that, during this period, expenditure regularly expands more than output and that the non-innovating sectors of the economic system adapt themselves to this state of things. It is not possible to show here by the historical interpretation of the behavior of time series . . . how perfectly this accounts for everything we mean when identifying a given interval as a time of business prosperity. After a period of gestation, which of course must be distinguished from what we may also designate by this term in the case of an individual firm, the products or services of the new business structures reach their markets displacing either other such products and services, or methods of production and enterprises linked to them which have now become obsolete, and enforcing a process of liquidation, readjustment, and absorption. This would be so even if nobody ever made any errors and nobody ever misbehaved, although there is no difficulty whatever in understanding that the consequences of error and misbehavior will show up during this period in which the system struggles back to a new neighborhood of equilibrium. On the side of money and credit, the fundamental element which induces all others is the fact that as soon as the receipts stream in from the sale of the new products and as far as they are used to pay back bank loans, deposits will have to contract, in strict logic, down to the point of the previous neighborhood and, in reality, some way towards it. Again, there is no difficulty in inserting into this picture, as understandable consequences of this fundamental chain of events, all the accidental phenomena which experience tells us are usually associated with it. This not only gives a truer picture of the nature and the organic functions of cyclical down-swings, but also accords satisfactorily with statistical evidence.

Whatever starts a deviation of the system from equilibrium always, although not with logical necessity, gives rise to secondary phenomena which are mainly due to the fact that business men will

act on the rates of change they observe. The sum total of these induced phenomena which are the center of the mass psychology of cycles and greatly intensify their amplitudes, we call "secondary waves" . . .

The units of the cyclical movements, then, lie necessarily between neighborhoods of equilibrium. In the simplest form of the model of economic change they have only two phases. But because of the fact that depressive forces gather momentum on the way back from the prosperity-excursion of the system, notably owing to the phenomena incident to the breakdown of the secondary wave, the system outruns usually the first neighborhood of equilibrium it strikes on its way back, and embarks upon a depression-excursion, from which it is forced up by the action of the equilibrium *ligamina* which bring it up again to another neighborhood from which the prosperity of the next cycle starts. Hence we have as a rule four phases: prosperity, recession, depression, and revival. This is almost generally recognized, but it is important to note that for purposes of fundamental analysis we are not free to count cycles from any point or phase we please, for instance, from peak to peak or trough to trough, but must always begin after the revival and at the beginning of a prosperity. It is, moreover, essential to distinguish these two, although it may be difficult to do so owing to the fact that they are both positive. The failure to do so, and especially to recognize that the "forces" at work in revival are entirely different from the "forces" at work in prosperity, is one of the main sources of faulty analysis.

The fundamental question still remains unanswered. Why should the carrying into effect of innovations . . . *cluster* at certain times, and not be distributed in so continuous a way as to be capable of being just as continuously absorbed as the current increase in the supply of labor is? One answer suggests itself immediately: as soon as the various kinds of social resistance to something that is fundamentally new and untried have been overcome, it is much easier not only to do the same thing again but also to do *similar* things in different directions, so that a first success will always produce a cluster. (See, e.g., the emergence of the motor-car industry.) This is indeed the method of *competitive* capitalism which has not as yet died out in *trustified* capitalism, to spread an improvement and to reap the social harvest—in the succeeding depression. But to carry full persuasion it would be necessary to go much deeper into this

phenomenon, the roots of which stretch far beyond the economic field, than is here possible. However, as it has been the unfortunate experience of the present writer that even a very elaborate exposition has failed at times to convey to critics the picture he desired to convey, he prefers to ask the reader to consider the clustering of innovations as a postulate or hypothesis made to fit the facts in the same way as hypotheses are made in physics, irrespective of what might be adduced for or against their objective truth. Yet he feels entitled to say to anyone who doubts this proposition: Look around you in industrial life and see for yourself whether it is not so. Other writers have quite independently stressed the fact that it is possible to associate historically every business cycle with a distinct industry, or a few industries, which led in it and, as it were, applied the torch to what after becomes a flare-up covering a much wider surface. The well established fact that fluctuations in investment goods are so much more marked than fluctuations elsewhere points, by virtue of its being explainable on the postulate mentioned, in the same direction. . . .

THE THREE-CYCLE SCHEMA

The above analysis not only accounts for the fact that waves of prosperity always do arise whenever a neighborhood of equilibrium is reached "from below," and that they always do taper off into a new neighborhood of equilibrium, but, as far as the present writer is able to make out, also accounts for every single fact or characteristic ever proved to be associated with either up-swings or down-swings not provably due to the action of outside factors. The reader is invited to make the experiment of testing this assertion by drawing up a list of what he considers these characteristics to be and observing whether they fit into the model offered. But there is no ground to believe that there should be just *one* wave-like movement pervading economic life. On the contrary, it stands to reason that some processes covered by our concept of innovation must take much longer time than others to have full effect. The railroadization or electrification of a country, for instance, may take between one-half and the whole of a century and involve fundamental transformations of its economic and cultural patterns, changing everything in the lives of its people up to their spiritual ambitions, while other innovations or groups of innovations may arise and disappear within a very few years. . . .

Historical knowledge of what actually happened at any time in the industrial organism, and of the way in which it happened, reveals first the existence of what is often referred to as the "Long Wave" of a period of between fifty-four and sixty years. Occasionally recognized and even measured before, especially by Spiethoff, it has been worked out in more detail by Kondratieff, and may therefore be called the Kondratieff Cycle. Economic historians of the nineteenth century have unconsciously and independently testified to the reality of the first of these waves our material allows us to observe, viz., the cycle from about 1783 to 1842, and they have also borne out in advance our interpretation of the phenomenon by coining the phrase of the "industrial revolution," which really implies everything we mean. The phrase is infelicitous and justly considered obsolete by now, but it pictures well how the happenings of the period struck entirely unprejudiced observers. The years 1842-1897 are readily interpreted as the age of steam and steel, particularly as the age of the railroadization of the world. This may sound superficial, but it can be shown in detail that railroad construction and work incident to it, connected with it, or consequential upon it, is the dominant feature both of economic change and of economic fluctuations during that time, and of every one of the four phases into which it is possible to divide it. Future historians finally will find no difficulty in recognizing the initiating importance of electricity, chemistry and motor cars for both the up-swing and the down-swing of the third Long Wave, which rose about 1897. Of course, if we prefer a more usual way of expressing the same thing, we may put these processes also into terms of "investment" and the expansion and contraction of credit: this is certainly a very important part of the mechanism. Unfortunately, this description is not only more usual but also more superficial, and opens the door to all the crudities and errors of the various monetary theories of the cycle. Any satisfactory analysis of causes must start with what induces that credit expansion, as every satisfactory analysis of effects must start by investigating what is done with the increased monetary resources—after which we immediately cease to wonder why the mere increase of credit facilities in or before a depression proves as ineffectual as we know it does. If, however, we stop at the process of investment and postulate that it has a mechanism of its own, we not only fail to get at the core of the matter but we also find it difficult to avoid such desperate logic as is implied in the conclusion

that because increase of investment and expansion of credit are associated with a prosperity phase, we therefore can produce prosperity by expanding credit.

The majority of students of the business cycle does not consider the evidence alluded to sufficient to establish this particular cycle. But what does that mean? The term Kondratieff Cycle is for us but a name for a certain set of facts (a certain long-time behavior of the price level, the interest rate, employment, and so on), none of which is open to doubt. It is true that the term also implies an interpretation to the effect that this behavior of our series is amenable to interpretation on the same lines as their behavior in shorter cycles. But this again is merely an inference from historical facts, which have not so far been called in question either. Of course, experience of about two and three-fourths units of a phenomenon does not warrant much generalization, and still less prediction.

It is therefore *only as a statement of fact* that we venture to say that the two complete Kondratieff units within our range of statistical vision contain each of them six cycles of from nine to ten years' duration, equally well established by industrial history, though less clearly marked in our time series, which corresponds as a matter of fact roughly to that cyclical movement which was the first to be discovered. Following the same procedure as in the earlier case, we may call them Juglar Cycles. As pointed out by D. H. Robertson, it is possible in every instance to indicate the particular industry and the particular innovations which are responsible for the up-swing and the process of readjustment.

Finally, every Juglar so far observed (those of the present Kondratieff included) is readily, in most cases and in this country already by inspection, divisible into three cycles of a period of roughly forty months. The existence of this shorter cycle has been pointed out repeatedly these hundred years or more, and still oftener has it been felt and recognized implicitly, but one may remark that it was the two studies by Mr. Kitchin and Professor Crum . . . that were chiefly instrumental in establishing it. Evidence about the commercial paper rate, this series being the most purely cyclical of all, is of course particularly important. That this cycle, as well as the others, is more clearly marked in this country than in any other and notably more marked than in England, is easily accounted for by the fact that cycles in most series will tend to be toned down or even ironed out the more a country's economic life

is interwoven with international influences and the more its policy approaches Free Trade. . . . It is, of course, admitted not only that non-cyclical changes also create wave-like movements but that besides the three just mentioned there are other cyclical waves. It is held, however, that the three-cycle schema works sufficiently well for the purposes of the stage of rough approximations in which we are, and are likely to remain for a considerable time.

CHAPTER 22

The Monetary Approach

THE GOLD STANDARD AND THE BUSINESS CYCLE¹

RALPH G. HAWTREY²

The regular recurrence of the business cycle is here related to fluctuations in the volume of credit issued by the banks in gold standard countries. Mr. Hawtreys believes that with the abandonment of the gold standard the periodic regularity of the trade cycle will disappear.

The Trade Cycle is an empirical discovery. That is to say, experience first showed periodical fluctuations to occur in the state of trade, and then economists set themselves the task of finding a deductive explanation of the phenomenon.

The experience was not in the first instance statistical. In 1837, when Jones Loyd (afterwards Lord Overstone) wrote his often-quoted description of the cycle, very little statistical material was available. "The history," Jones Loyd said, "of what we are in the habit of calling 'the state of trade' is an instructive lesson. We find it subject to various conditions which are periodically returning; it revolves apparently in an established cycle. First we find it in a state of quiescence—next, improvement—growing confidence—prosperity—excitement—overtrading—convulsion—pressure—stagnation—distress—ending again in quiescence."

Jones Loyd was generalizing from the experience since the Napoleonic wars. The climax had been reached by three successive cycles, in 1818, in 1825, and in 1836. Since his day an ever-increasing wealth of statistical evidence has enabled us to describe the characteristics of the cycle with growing fullness and precision.

¹ This selection is reprinted by kind permission of publisher from Ralph G. Hawtreys, "The Monetary Theory of the Trade Cycle and Its Statistical Test," *Quarterly Journal of Economics*, Volume XLI, May, 1927, pages 471-482.

² Ralph George Hawtreys (1879-) is now with the British Treasury.

Theories of the trade cycle have, one and all, been invented *to fit the statistical evidence*. That in itself makes a statistical test to discriminate among them difficult. . . .

The monetary theory of the trade cycle includes two principal theses: (1) that certain monetary or credit movements are *necessary* and *sufficient* conditions of the observed phenomena of the trade cycle, and (2) that the periodicity of these phenomena can be explained by purely monetary tendencies, which cause the movements to take place in succession and to be spread over a considerable period of years. . . .

The essential characteristic of the trade cycle is that maximum productive activity synchronizes with the maximum price level, and minimum productive activity with the minimum price level. That is itself a monetary phenomenon. If the consumers' income and consumers' outlay (the aggregate income and expenditure of the community reckoned in monetary units) remained unchanged, the price level would rise when production falls and fall when production rises. The changes in the consumers' income and the consumers' outlay are none the less a monetary phenomenon, even if they are accompanied with no corresponding changes either in the unspent margin (the total stock of means of payment, whether money or credit), or in credit conditions.

These monetary movements are a necessary condition of the trade cycle as we know it. That is a mere matter of arithmetic. But according to the monetary theory of the trade cycle they are not merely a necessary but a sufficient condition.

This proposition depends upon monetary theory. It cannot be regarded as universally true without qualification. All that we can show is that in general the train of causes which bring about a contraction of the consumers' outlay will be accompanied by reduced production, and the train of causes which bring about an expansion of the consumers' outlay will be accompanied by a stimulus to production. The stimulus to production will evoke an actual increase in productive activity if industry is not already employed up to capacity.

It is not necessary here to elaborate the arguments by which these conclusions are arrived at. It is easy to see that the consumers' outlay constitutes the effective demand for all products; that, when it contracts, sales at existing prices fall off; that orders for fresh supplies are curtailed and so production is reduced. A fall of prices is neces-

sary to restore equilibrium, but this fall, while it is in progress, intensifies the reluctance of traders to hold stocks of goods or to buy forward. Likewise, when the consumers' outlay expands, sales are accelerated, orders are increased, production is stimulated, prices rise, forward purchases are encouraged. . . .

The statistical records of the trade cycle are themselves a striking verification of the relation between consumers' outlay and production. They are amply confirmed by the experience of monetary changes occurring outside the trade cycle. Countries with unstable paper currencies have repeatedly found, both before the World War and since, that every fresh rise in prices is accompanied by active production, every reaction to lower prices, unless it be very fleeting, by depression. In fact, if the "catastrophe boom" and the "deflation crisis" have become familiar to men of affairs at the present day, that is on empirical rather than theoretical grounds. Experience has of itself afforded the materials for a generalization which is hardly disputed. Theory has arrived at the same generalization deductively and independently. . . .

It should be clearly understood that up to this point we have not been arguing that the cyclical fluctuations in productive activity are actually caused by the cyclical fluctuations in the consumers' outlay. So far as the argument has gone, the fluctuations in productive activity might be the cause of the fluctuations in the consumers' outlay, tho, if that were so, it would still be true that the latter fluctuations would tend to intensify the former.

It is one of the disadvantages of the statistical method that a correlation between two varying quantities does not readily reveal which is cause and which is effect, or whether both are effects of some other cause.

It is quite in accordance with currency theory that an increase (or decrease) in production should lead directly and immediately to an increase (or decrease) in the creation of credit, unless the banks interfere to prevent it, and that the increase (or decrease) in the creation of credit should be accompanied by an increase (or decrease) in the consumers' income and the consumers' outlay. Consequently, while we have shown that, if an increase (or decrease) in the consumers' outlay does occur, that is a sufficient condition for an increase (or decrease) in production, our arguments leave it still possible that the process may *originate* in production and not in the consumers' outlay.

Now there must be innumerable fortuitous changes in the volume of production constantly occurring, some large and some small. But they will not lead us to an explanation of the trade cycle unless they (whether singly or in combination) are periodical in their action. And not merely must they be periodical, but their period must be that statistically established, varying from about 7 to 11 years.

If there is to be a statistical test of the monetary theory of the trade cycle, the main function of the test will be to distinguish between that theory and any other which claims to account for the periodicity of the fluctuation in productive activity.

Our first step must be to state the deductive basis of the monetary theory itself. What ground have we for expecting a periodical movement in the amount of the consumers' income and the consumers' outlay extending over intervals of from 7 to 11 years? . . .

The period for the observation of the trade cycle is the century which separated the Great War from Waterloo. It was a period of international metallic standards (bimetallic till 1872, and thereafter gold). The regulation of credit was in the hands of a limited circle of Central Banks and discount markets, the leadership coming more and more into the hands of the Bank of England. Specie was largely used in active circulation, and in the latter part of the period, when it was replaced in many countries by convertible paper money, the note issue required—by law or practice—a proportional gold backing.

The reserves of the Central Banks were therefore always being drawn upon to meet the needs of active circulation. Gold passed from one country to another and back, and credit policy was directed in large measure to checking such international movements. But the reserve position of all gold standard countries together depended upon the demands for active circulation. So long as some countries had redundant gold, they could supply the needs of those which ran short. If all were approaching the limits of safety, there was no resource left (consistently with the maintenance of the gold standard and the reserve law in which it was embodied) but to check the passage of currency into circulation.

The periodical development of this position is the foundation of the monetary theory of the trade cycle. Under the conditions described, the absorption of currency into active circulation was a very gradual process. If at any time there was a surplus of gold in reserve, the banks would be induced, for the sake of profit, to increase their

lending. But any country which expanded credit faster than its neighbours would lose gold and have to slow down again. The countries which received the gold would then have the opportunity of expansion till they in turn went a little too fast. Thus those countries which were slowest in expanding credit retarded the others, and had to be driven by heavy imports of redundant gold to join in the general movement.

Not only was credit expansion in a complicated international system for this reason very gradual, but the absorption of currency into active circulation, which results from credit expansion, would lag far behind it. That is why an interval of several years invariably elapsed between the time when gold reserves were redundant and a credit expansion was started, and the time when gold reserves began to run short and the expansion had to be checked. When the expansion was checked, the process of bringing currency back from circulation into the reserves was as slow as the preceding absorption.

It is in these sequences of events that we must seek for statistical verification of the theory. The reserve positions and note issues of the Central Banks, and the measures taken by them from time to time are on record. It ought to be possible to obtain sufficiently comprehensive statistics of imports and exports of gold for various countries in the period before 1914 to be able to compute their currency demands. With such materials the gold situation underlying the measures taken for relaxing or restricting credit could be revealed. . . .

A bare statistical compilation would be of little value in a subject of such complexity. It should be combined at every step with a record of the principal economic and political factors affecting credit, such as international movements of capital, crop conditions, wars and diplomatic crises, etc.

The general result to which, according to the monetary theory, it ought to lead would be on the following lines. Each period of depression should be found to start with high discount rates, accompanied by an increase in gold reserves and a contraction (or relative contraction) of active circulation. As gold reserves increase and rise above requirements, there should supervene a regime of low discount rates. This regime of cheap credit should persist for a considerable time (probably several years) while the gold reserves remain adequate. . . .

The active phase of the trade cycle is marked by dear money. To support the monetary theory, the statistics ought to show that the

turning point, when the active phase comes to an end, is reached through the Central Banks being driven by a threatened shortage of gold to make credit restriction effective, whether by severely deterrent discount rates or any other means. The essence of the monetary theory is that the active phase is brought to an end by a threatened shortage of gold. But for that, credit expansion might proceed indefinitely, and according to the monetary theory continued credit expansion means continued productive activity.

The expansion once checked, the restoration of the gold position is slow. The impetus of the preceding activity will continue for a time, while existing orders and contracts are being worked through, and after that is done, the process of bringing back the money which has passed into the hands of the public is likely to be gradual.

The statistics ought to show a culmination of the price level, followed after an interval by a decline in employment and the reductions of wages. After the decline in employment and the reductions of wages have set in, currency ought to begin to come back from circulation and relieve the reserve situation. Thereupon a new period of cheap money should set in, while gold reserves for a time increase and become excessive. In due course the gold reserves should begin to decline, and then should reach a level at which they are no longer redundant, and so a new cycle takes its course.

In any comparison of the theoretical progress of the cycle with the recorded statistics, numerous interruptions and vagaries are bound to be discovered. Changes in the balance of payments will make a country temporarily prosperous when others are depressed, or depressed when they are prosperous. Such changes arise from international investments, from abundant or deficient crops, from increased or decreased demand for a staple export product, and from many other causes. But it is characteristic of the monetary theory that the general trend of the cycle, tho interrupted from time to time, *will always be resumed*. So long as there is redundant gold floating about somewhere, easy credit, even if suspended for a time, will inevitably be reverted to, and credit expansion will set in again. So long as there is a shortage of gold, credit restriction, even if staved off for a time, must be reimposed. Whatever causes may be affecting the course of trade, favorably or unfavorably, they cannot prevail over the influence of the gold situation. The banks cannot allow optimism to prevail when gold is deficient, or pessimism when gold is redundant. The statistical verification of the monetary theory must

'consist mainly in showing that the underlying currency situation has always prevailed over other causes.

The whole theory depends upon the currency in circulation being closely related to the gold supply, whether through the use of gold coin or through the use of paper money with a prescribed gold reserve. Since the War this condition has not been fulfilled. There can be no statistical verification of the trade cycle because there has been no trade cycle. There has been no trace of the pre-war cyclical period of 7 to 11 years beginning to develop, and little trace of the phases of activity and depression synchronizing in different countries.

BANK CREDIT AND BUSINESS PANICS¹

FINLEY PETER DUNNE²

Mr. Dooley here discusses a peculiar version of the credit theory of the business cycle.

"Have ye taken ye'er money out iv th' bank? Are ye wan iv thim impechuse prooletaryans that has been attackin' th' Gibyraltars iv finance, cow'rd that ye are to want ye'er money in a hurry, or are ye not? I see be th' look iv ye'er face that ye are not. Ye have been a brave man; ye have had faith in th' future iv our counthry; ye have perceived that our financial institutions are sound if they are nawthin' else. Ye undherstand that it's upon th' self-resthRAINT iv men like th' likes iv ye that th' whole credit iv th' nation depinds. I read it in the pa-apers an' 'tis thrue. Besides, ye have no money in th' bank. Th' on'y way ye or me cud rightly extricate anny money fr'm a bank wud be be means iv a brace an' bit.

"No matther. 'Tis you that has done it. I give great credit to George B. Cortilyoo, J. Pierpont Morgan, Lord Rothschild, Jawn D. Rockyfellar, th' banks iv Ameriky, th' clearing house comity, th' clearing out comity, an' all th' brave an' gallant fellows that have

¹ This selection is reprinted by kind permission of the publishers from Finley Peter Dunne, *Mr. Dooley Says*, New York, Charles Scribner's Sons, 1910, pages 59-66.

² Finley Peter Dunne (1867-1936), author, journalist, and editor was regarded by some as the Will Rogers of his day.

stood firmly with their backs to th' wall an' declared that anny money taken out iv their institutions wud be taken over their dead bodies. They have behaved as American gintlemen shud behave whin foorce iv circumstances compels thim to behave that way. But if, in this tur-rible imergency I am obliged to tell th' truth, I've got to confess to ye that th' thanks iv th' nation, a little bit late, but very corjal, are due to th' boys that niver had a cent in th' banks, an' niver will have. They have disturbed none iv our institutions. No great leader iv fi-nance has turned green to see wan iv thim thryin' to do th' leap f'r life through a closed payin' teller's window. Th' fellow that with wan whack iv a hammer can convart a steer into an auty-mobill or can mannyfacter a pearl necklace out iv two dollars' worth iv wurruk on a slag pile, has throubled no wan. Ye're th' boy in this imergency, Hinnessy.

"Th' other mornin' I was readin' th' pa-apers about th' panic in Wall Sthreet an' though I've niver seen annything all me life but wan continyal panic I felt low in me mind until I looked up an' see ye go by with ye'er shovel on ye'er shouldher an' me heart leaped up. I wanted to rush to th' tillygraft office and wire me frind J. Pierpont Morgan: 'Don't be downcast. It's all right. I just see Hinnessy go by with his shovel.'

"No, sir, ye can bet it ain't th' people that have no money that causes panics. Panics are th' result iv too manny people havin' money. Th' top iv good times is hard times and th' bottom iv hard times is good times. Whin I see wan man with a shovel on his shouldher dodgin' eight thousand autymobills I begin to think 'tis time to put me money in me boot.

"'Tis hard f'r me to undherstand what's goin' on," said Mr. Hennessy. "What does it all mean?"

"'Tis something ye wudden't be ixpected to know," said Mr. Dooley. "'Tis what is known as credit. I'll explain it to ye. F'r the sake iv argymint we'll say ye're a shoemaker. Oh, 'tis on'y f'r th' sake iv argymint. Iverywan knows that a burly fellow like you wudden't be at anny employmint as light an' effiminate as makin' shoes. But supposin' f'r th' sake iv argymint ye're a shoemaker. Ye get two dollars a day f'r makin' forty dollars' worth iv shoes. Ye take part of ye'er ill-gotten gains an' leave it with me f'r dhrink. After awhile, I take th' money over to th' shoe store an' buy wan iv th' pairs iv shoes ye made. Th' fellow at th' shoe store puts th' money in a bank owned by ye'er boss. Ye'er boss sees ye're dhrinkin' a good deal an'

be th' look iv-things th' distillery business ought to improve. So he lends th' money to a distiller. Wan day th' banker obsarves that ye've taken th' pledge, an' havin' fears f'r th' distilling business, he gets his money back. I owe th' distiller money an' he comes to me. I have paid out me money f'r th' shoes an' th' shoe-store man has put it in th' bank. He goes over to th' bank to get it out an' has his fingers cut off in a window. An' there ye are. That's credit.

"I niver knew before how little it depinded on. There's Grogan th' banker. He's a great man. Look at his bank. It looks as though an earthquake wudden't flutter it. It's a cross between an armory an' a jail. It frowns down upon th' sthreet. An' Grogan. He looks as solid as though th' columns iv th' building was quarried out iv him. See him with his goold watch chain clankin' again th' pearl buttons iv his vest. He niver give me much more thin a nod out iv th' north-east corner iv his left eye-brow, but he was always very kind an' polite to Mulligan, th' little tailor. Except that I thought he had a feelin' iv respect f'r me an' none at all f'r Mulligan. Th' other mornin' I see him standin' on a corner near th' bank as Mulligan dashed by with a copy iv his fav'rite journal in wan hand an' a pass book in th' other. 'That man is a coward,' says Mulligan. 'Tis th' likes iv him that desthroys public confidence,' says he. 'He must 'ev been brave at wan peeryod iv his life,' says I. 'Whin was that?' says he. 'Whin he put th' money in,' says I. 'It's th' likes iv him that makes panics,' says he. 'It's th' likes iv both iv ye,' says I. 'I niver see such team wurruk,' says I. 'That bank is a perfectly solvint institution,' says he. 'It's as sthrong as th' rock of Gibyraltar. I'm goin' over now to close it up,' says he. An' he wint.

"Well, glory be, 'tis no use botherin' our heads about it. Panics an' circuses, as Father Kelly says, are f'r th' amusement iv th' poor. An' a time iv this kind is fine f'r ivrybody who hasn't too much. A little while ago ye niver r-read in th' pa-aper annything about th' fellow that had his money in th' bank anny more thin ye'd read about th' spectators at a prize fight. 'Twas all what th' joynts iv fi-nance were doin'. 'Who's that man with th' plug hat just comin' out iv th' gamblin' joint?' 'That's th' prisidint iv th' Eighth Rational.' 'An who's that shakin' dice at th' bar?' 'That's th' head iv our greatest thrust comp'ny.' An' so it wint.

"Today I read in th' pa-apers an appeal to th' good sense iv Mulligan, th' tailor. It didn't mintion his name, but it might just as well. 'Twas th' same as sayin': 'Now, look here, Mulligan, me brave fellow.

'Tis up to you to settle this whole matther. It's got beyond us and we rely on ye not to dump us. We lost our heads but a man iv ye'er carackter can't afford to do annything rash or onthinkin' like a lot iv excitable fi-nanceers. Ye must get undher th' situation at wanst. We appeal to th' good common sense th' pathritism, th' honor, th' manly courage an' th' ca-mness in th' face iv great danger iv Timothy Mulligan to pull us out iv th' hole. Regards to Mrs. Mulligan an' all th' little wans. Don't answer in person (signed) Jawn D. Rocky-fellar.'

"An' iv coorse Mulligan'll do it. Mulligan caused th' throuble be havin' money in th' first place an' takin' it out in th' second place. Mulligan will settle it all be carryin' his money back to th' bank where money belongs.

"Don't get excited about it, Hinnissy, me boy. Cheer up. 'Twill be all right tomorrah, or th' next day, or some time. 'Tis wan good thing about this here wurruld, that nawthin' lasts long enough to hurt. I have been through manny a panic. I cud handle wan as well as Morgan. Panics cause thimsilves an' take care iv thimsilves. Who do I blame for this wan? Grogan blamed Rosenfelt yesterday; to-day he blames Mulligan; tomorrah he won't blame anny wan an' thin th' panic will be over. I blame no wan, an' I blame ivry wan. All I say to ye is, be brave, be ca'm an' go on shovellin'. So long as there's a Hinnissy in th' wurruld, an' he has a shovel, an' there's something f'r him to shovel, we'll be all right, or pretty near all right."

"Don't ye think Rosenfelt has shaken public confidence?" asked Mr. Hennessy.

"Shaken it," said Mr. Dooley; "I think he give it a good kick just as it jumped off th' roof."

CHAPTER 23

The Keynesian Approach

THE BUSINESS CYCLE: ITS NATURE AND ITS CURE¹

JOAN ROBINSON²

Here is presented the Keynesian analysis of the business cycle in terms of fluctuations in the level of private investment. Also discussed is the role of the government in mitigating these fluctuations by controlling the rate of interest and by financing public investment projects.

THE TRADE CYCLE

We have now collected the pieces of our jig-saw puzzle, and we must fit them together to form a picture of the fluctuations in employment to which a system of private enterprise is subject.

At any moment trade is always either improving or relapsing, and in the real world "normal times" never come; we must therefore make an arbitrary choice as to where to take up our story. The most convenient place to begin is the early stage of a trade revival. The rate of investment begins to rise, and consequently activity in the consumption-good industries increases, to the extent dictated by the size of the Multiplier. As output is increasing investment in working capital takes place, and gives a further fillip to activity. Now the general state of trade has improved and profits are increasing. The lethargy and despair of the slump period leave the souls of entrepreneurs, and their views of future profits begin to be coloured by the higher level of profits ruling in the present. A further expansion of investment therefore takes place. New equipment is ordered to provide for the higher rate of output and new concerns spring up to take advantage of expanding demand. With the higher level of invest-

¹ This selection is reprinted here by kind permission of the publishers from Joan Robinson, *Introduction to the Theory of Employment*, London: Macmillan and Co., Ltd., 1937, pages 114-123.

² (Mrs.) Joan Robinson (1903-) is a well known British Economist.

ment, and consequently of expenditure, profits are again increased, prospects are further improved, new schemes of investment undertaken, and the upward movement feeds on itself.

This process may continue over the course of several years. But all the time the products of investment are accumulating—buildings, equipment, ships, improvements to land, and durable capital goods of all kinds are coming into use, and the competition of each new arrival reduces the level of profits for those already in existence. The expansion of investment slows down.

Now, the tragedy of investment is that (unless stimulants are applied) it can never remain at a constant level. For if the rate of investment one year is the same as the last, then, generally speaking, the level of employment and incomes and therefore the level of demand for goods will be the same in the second year as in the first. But all the time capital is accumulating, and in the second year there is a larger amount of equipment available to meet the same demand for commodities. The rate of profit consequently falls off, future prospects are dimmed by the decline in present receipts, and in the third year new investment appears less attractive to entrepreneurs than in the second.

Once investment begins to decline, the Multiplier is set to work in the downward direction, consumption falls off, unemployment increases, and activity and profits decline. The prospects of future profits degenerate under the influence of their present decline, investment falls still further, and the downward movement feeds on itself.

But just as the tragedy of investment lies in the fact that it makes durable additions to real wealth, so a paradoxical comfort is to be found in the fact that capital goods are not permanently durable. Obsolescence and wear and tear deplete the stock of capital, and when activity has ruled at its lowest level for a year or two the gradual decline in the supply of efficient equipment raises the level of profit for that which remains. Here and there investment in making good deficiencies begins to take place, and with an increase in the rate of investment the whole story begins again.

This is the rhythm of investment, which is the main force governing the cycle of trade activity. Other movements are superimposed upon the underlying rhythm. As we have seen, there is a tendency for thriftiness in the capitalist class to decline as prosperity increases, under the influence of a Stock Exchange boom, so that the upswing

of activity is enhanced by an increase in the ratio of consumption to investment just when investment itself is increasing. The reaction of spirits which sets in when prosperity begins to decline, and Stock Exchange prices fall, enhances the downward movement, and so the oscillations of trade are exaggerated in each direction.

Changes in sentiment further exaggerate the violence of trade oscillations. We have so far described the process of improving and declining trade as though it took place gradually and smoothly, and this would be the case if entrepreneurs at each moment judged the future level of profits mainly by the current level of profits. But if they develop a state of mind in which increasing profits lead them to expect a further increase in the future, and declining profits a further decline, then the oscillations of investment will be exaggerated, and the turning point will come with greater violence. As soon as investment ceases to increase, exaggerated pessimism will take the place of exaggerated optimism and the slump period will be inaugurated by a sudden violent decline in activity instead of a gradual relapse.

The rhythm of thriftiness and the rhythm of expectations exaggerate the effects of the rhythm of investment. Movements of the rate of interest on the other hand come in as a counterweight to the rest. As the level of activity declines the demand for money shrinks, and the rate of interest tends to fall. The decline in investment is therefore less severe than it would be if the rate of interest were constant, and when the bottom is reached recovery sets in sooner. Conversely increasing activity, particularly if it is accompanied by rising money wages, drives up the rate of interest by increasing the demand for money. Consequently the increase in the rate of investment is checked and the period of prosperity curtailed. Thus the rhythm of the rate of interest runs counter to the rhythm of investment and damps down the oscillations of trade.

A movement, in either direction, in one country tends to spread over the world. Booms and slumps are catching, for when activity increases in one country the benefit is felt in others, by way of increased demand for exports, and when activity falls off in one country the rest are impoverished. For any one country the initial upward movement may take the form of increased foreign investment due to a revival of activity abroad.

A movement in the exchange rate may counteract influences coming from the outside world and the infection spreads most easily

when the exchanges are stable. When the gold standard system was in full operation the nations of the western economic world moved closely in step with each other, but in the post-war period we have several times seen particular countries insulated from a world slump by a reduced exchange rate, or cut off from the benefits of a world revival by pertinacious adherence to a high rate.

CONTROLLING THE TRADE CYCLE

These movements comprise what is often called the "natural" rhythm of business activity, as opposed to the influences of government or monetary policy. The dichotomy is somewhat artificial, for the actions of governments and monetary authorities are as much a part of nature as the actions of private entrepreneurs; but the world is growing more conscious of the trade cycle, it is beginning to be regarded as a duty for the authorities to mitigate the violence of booms and slumps by whatever means they may possess, and their actions therefore tend to run counter to the action of private entrepreneurs.

The motive of the authorities for attempting to improve trade during a slump is obvious enough. There are two distinct types of motive for wishing to check a boom. First, it is often argued that boom conditions should be prevented from developing because it is the boom which is the cause of the slump that follows it. In a certain sense this is true, for as we have seen it is the very fact that a high rate of capital accumulation takes place in the boom which prevents the boom from continuing. But it does not follow that booms ought to be eliminated. There are not two kinds of investment—good investment which does not bring on a decline in activity and bad investment which does. All investment is good in that it promotes activity while it is going on and adds to wealth when it is completed. All is bad in the sense that it cannot last and must be followed by a decline in activity. It is impossible to get rid of the bad features of investment without sacrificing the good features, and to stabilize trade by means of eliminating booms would merely be to enforce a permanent slump. It may, indeed, be argued that the average of prosperity, one year with another, would be higher if a moderate level of prosperity were exchanged for a high level at some times and a low level at others, though, even if this could be established, a policy of maintaining unemployment permanently at a little below its present average level is not one that can be recommended with

much enthusiasm. But whatever may be the merits of the argument, the notion that a boom is to be feared as a cause of depression has considerable influence in inclining the authorities to check the development of boom conditions when they begin to appear.

The second motive for wishing to damp down boom conditions is the fear of inflation. Inflation has become a stock boggy to such an extent that even in the depths of depression in 1931 it was not thought ridiculous to frighten the public by parading it, but actually no case of extreme inflation has been known to occur in normal circumstances. Inflation as we have seen requires two conditions: first, that the level of unemployment has fallen so low that a violent and irresistible rise in money wages takes place; and second, that something has occurred to remove the stopper normally provided by a limited quantity of money, which ensures that the rate of interest shall be pushed up, and investment consequently checked, when the rise in money wages begins. Wars and revolutions have frequently led to violent inflation, but in times of peace with a stable government and a competent monetary authority it is little to be feared. All the same the dread of inflation has such a strong hold upon the minds of the authorities that it plays an important part in inclining them to use their influence to prevent trade conditions from becoming what they regard as dangerously good.

Apart from beggar-my-neighbor policies, the two chief weapons of the authorities for counteracting booms and slumps are the rate of interest and public investment. The monetary authorities normally try to foster the remedial action of the rate of interest by deliberately increasing the quantity of money when activity has fallen to a low level, and restricting it when the boom is at its height, thus enhancing the "natural" movements in the rate of interest. It is found that such action as the authorities normally take is not sufficient to induce a steady rate of investment, for once pessimism has taken hold of the entrepreneurs a moderate fall in the rate of interest is not sufficient to restore the inducement to invest, and when they are dazzled by golden visions of profit a moderate rise in the rate of interest will not check their enthusiasm. But the movements of the rate of interest induced by the authorities at least tell in the direction of damping down oscillations of trade.

Public works policy has long been advocated as a corrective to the trade cycle. The ideal policy which has been put forward is for plans to be worked out many years in advance of requirements, and for the

rate at which they are carried out to be adjusted so as to counteract the movements of private investment. This policy has now won almost universal acceptance in principle but it has yet to be seen in full action. A considerable share in the revival of trade which began in 1933 is to be attributed to the deliberate efforts of a number of governments to foster investment. But in the early part of 1937, when talk of a boom began to be common and a reduction in public investment was advocated, the governments of the world were concentrating their energies on an armaments race, so that public investment increased still further just at the time when a revival in private investment was well under way.

LONG-PERIOD INFLUENCES

The regular pattern of the trade cycle is interrupted by particular events—a war, a good harvest, a political crisis, an important invention or the discovery of a new gold-field—which jerk the movement of trade from its normal course, so that the path which it follows is full of irregularities. The history of trade presents the spectacle of a strong tendency to regular oscillations, interrupted by sporadic movements in one direction or another.

Further, the oscillations of the trade cycle overlies deeper influences. Increasing population, a rapid succession of inventions and opportunities for exploiting new territories, give buoyancy to the profitability of capital and provide an ever-renewed stimulus to investment.

When these sources of demand for capital are lacking it appears that the motive for investment must be chronically weak, so that slumps are deep and prolonged, and moderate prosperity is hailed by contrast as a boom. Since the increase in population is rapidly approaching its end in the western world, no fresh continents remain to be discovered, and a new age of invention comparable with the nineteenth century is scarcely to be hoped for, it appears that in the near future powerful stimulants will have to be applied to the economic system if chronic unemployment is to be avoided.

A long-run fall in the rate of interest would do much to stimulate private investment, while an extension of public investment could make up for its deficiencies, and a drastic policy of redistribution of income would increase consumption, and reduce the amount of investment necessary to preserve a reasonable level of employment. All these policies meet with serious difficulties and have to contend

with violent opposition, and it remains to be seen whether it is possible for the present economic system to adapt itself to the requirements of the future.

THE NEED FOR AN ECONOMIC STEERING WHEEL¹

ABBA P. LERNER²

Mr. Lerner, writing in the Keynesian tradition, here pleads for installation of an economic steering wheel to control booms and depressions.

Our economic system has frequently been put to shame by displaying it before an imaginary visitor from a strange planet. It is time to reverse the procedure. Imagine yourself instead in a Buck Rogers interplanetary adventure, looking at a highway in a City of Tomorrow. The highway is wide and straight and its edges are turned up so that it is almost impossible for a car to run off the road. What appears to be a runaway car is speeding along the road and veering off to one side. As it approaches the rising edge of the highway its front wheels are turned so that it gets back onto the road and goes off at an angle making for the other side where the wheels are turned again. This happens many times, the car zigzagging, but keeping on the highway until it is out of sight. You are wondering how long it will take for it to crash, when another car appears which behaves in the same fashion. When it comes near you it stops with a jerk. A door is opened and an occupant asks if you would like a lift. You look into the car and before you can control yourself you cry out, "Why! There's no steering wheel!"

"Of course, we have no steering wheel!" says the occupant rather crossly. "Just think how it would cramp the front seat. It is worse than an old-fashioned gear-shift lever and it is dangerous. Suppose we had a steering wheel and somebody held on to it when we reached

¹ This selection is reprinted by the kind permission of the publisher and author from Abba P. Lerner, "The Economic Steering Wheel," *University Review*, University of Kansas City, June, 1941, pages 257-265.

² Abba Ptachya Lerner (1903-) is now professor of economics in Roosevelt College.

a curb! He would prevent the automatic turning of the wheel and the car would surely be overturned! And besides we believe in Democracy and cannot give any one the extreme authority of life and death over all the occupants of the car. That would be Dictatorship."

"Down with Dictatorship," chorus the other occupants of the car.

"If you are worried about the way the car goes from side to side," continues the first speaker, "forget it! We have wonderful brakes! And do you see those men marking and photographing the tracks of the car that preceded us? They are going to take those pictures into their laboratories, and pictures of our own tracks too, to analyze the cyclical characteristics of the curves, their degree of regularity, the average distance from turn to turn, the amplitude of the swings and so on. When they have come to an agreement on their true nature we may know if something can be done about it. At present they are disputing whether this cyclical movement is due to the type of road surface or to its shape or whether it is due to the length of the car or the kind of rubber in the tires, or the weather. Some of them think that it will be impossible to avoid the cycles unless we go back to the horse and buggy, but we can't do that because we believe in Progress. Well, want a ride?"

The dilemma between saving your skin and humoring the lunatics is resolved by your awakening from the nightmare, and you feel glad that the inhabitants of your own planet are a little more reasonable. But are they as reasonable about other things as they are about the desirability of steering their automobiles? Do they not behave exactly like the men in the nightmare when it comes to operating their economic system? Do they not allow their *economic* automobile to bounce from the curb of depression to the curb of inflation in wide and uncontrolled arcs? Through their failure to steer away from unemployment and idle factories are they not just as guilty of public injury and insecurity as the mad automobilists of Mars?

The outstanding problem of modern society is just this. All the other really important problems such as wars and fascism are either caused or aggravated by the failure to solve this one. What is needed more than anything else is a mechanism which would enable us to regulate our economy so as to maintain a reasonable degree of economic activity: on the one hand to prevent any considerable unemployment of resources and on the other hand to prevent the stresses of the overemployment of resources and the disorganization that we

know as inflation. We need a regulator of employment—a mechanism for the maintenance of prosperity.

The instrument that can do this is as readily available as the steering wheel for automobiles, yet it is not installed and operated. Instead, all our universities are engaged in studying and adding to the enormous literature about the path travelled by the economy when no steering wheel is used—the study of the business cycle. . . .

A great majority of the people to whom the theory of controls is explained will say, "I can see that you are right but most people will not be able to see it, so that there is no chance of anything being done." The number of people who take this attitude is most alarming. This is the attitude of the more intellectual persons. Equally discouraging is the attitude of less intellectual (or rather less self-confident) members of the public who will say, "It seems all right to me, but I am not an expert and I suppose there is something wrong that I can't see." And in this way policy is stalled. The intellectuals are afraid to push the proposal because of unjustified contempt for the public (or perhaps because of subjective doubts as to their own superiority), and the public is afraid to accept arguments that they understand perfectly well because the "intellectuals" (for whom they have an unjustified reverence) have not come out for them.

With one important difference the situation is like that of the famous emperor in the story who was persuaded to parade before his people in his underwear by the charlatans who claimed that the imaginary new clothes they had made for him were so fine that no one could feel them, and so beautiful that no one who was foolish or dishonest or unfit for his office could see them. And so neither the emperor nor any of his courtiers or his people would admit that they saw no clothes until they were betrayed by an unintimidated child. So it is with the problem of organizing prosperity. The scholars who understand it hesitate to speak out boldly for fear that the people will not understand. The people, who understand it quite easily, also fear to speak out while they wait for the scholars to speak out first. The difference between our present situation and that of the story is that it is not the emperor but the people who needlessly go naked and hungry and insecure and discontented—a ready prey to less timid organizers of discontent for the destruction of civilization.

SECTION X

Public Finance

THE CLASSICAL ECONOMISTS OF THE 19TH CENTURY firmly believed that governmental activity should be held to a minimum. They wanted the state to pursue a hands-off, or *laissez-faire*, policy toward business and to concentrate mainly on the negative task of eliminating the causes of friction from the automatic working of the economic machine, i.e., in general merely to maintain the "rules of the game." Among the more positive duties which these economists prescribed for the government were the provision for national defense and the maintenance of law and order. The emphasis throughout was on the problem of *maximizing* national income through efficient production rather than on the problem of *regularizing* the production of national income or *equalizing* the distribution of that income.

In order to carry out its proper functions the government—according to the Classical view—was to collect a minimum of revenue in order to finance a minimum of expenditures, for the objective was to operate the government like a sound business institution—i.e., to force the state to live within its "means"—and prudently to balance the public budget on an annual basis. That was considered the only way of preserving an individualistic free enterprise system under capitalism.

Around the turn of the century—but especially during the depression of the 1930's—a group of critics and reformers began to clamor for an expansion of the traditional role which the state played in the economic life of the people. No longer was it considered enough for the government to behave in a negative way toward the functioning of the economic order or to restrict its activity to a provision for defense and a maintenance of law and order. New duties were placed on the shoulder of the state: care for the needy and unemployed, the mitigation of cyclical fluctuations, the provision of many new services, and the extension of old services on a larger scale. All this meant a higher level of public expenditures.

The problem, therefore, arose of how to finance these new expenditures. Should taxes be raised to defray the cost of governmental

services? If so, how should those taxes be levied—on the basis of the “ability to pay,” the “minimum sacrifice,” or the “benefit” principle? Should they be direct or indirect taxes, taxes on incomes or excise and sales taxes; if income taxes, should the rate applied be regressive, proportional, or progressive?

Perhaps the best method of financing public expenditures was not by taxation. Perhaps borrowing from the public, the commercial banks, and the central bank should be resorted to. If recourse were made to borrowing, how far should the government go? Should it maintain an annually balanced budget or a budget balanced over the period of the business cycle; or should the government continue borrowing indefinitely without regard to the ever mounting size and burden of the national debt?

Regardless of the answer given to the above questions, one thing was clear: with the growing importance of governmental participation in (or interference with) the private economy, taxation and borrowing, revenues and expenditures could no longer be treated as separate and isolated problems. Public finance could no longer be regarded as a minor and essentially independent branch of economic science. Once it was recognized that the level of expenditures and revenues—and the manner in which they were made and raised, respectively—produced marked effects on the volume of production, prices, income and employment, the role of fiscal policy as an important tool of the state became apparent. The role of fiscal policy as a possible instrument for the regularization of national income and for the equalization (or wider diffusion) of that income among the people appeared in clear relief.

Controversy, therefore, came to be centered around such problems as whether fiscal policy should be used as a compensatory device for the mitigation of the business cycle and the maintenance of full employment; whether it should serve as a tool for changing the prevailing distribution of income; and whether it should be employed as a means of achieving a gradual transition from capitalism to some other system of economic organization. All questions of taxation, borrowing, expenditures, and war finance—that is, in general, questions of budgeting public funds—came to cluster around these basic problems; for fiscal policy had become part of an integrated government policy toward the economic order, the significance of which, in recent decades, received special emphasis from the exigencies of financing total war.

CHAPTER 24

Taxation

IN DEFENSE OF PROGRESSIVE TAXATION¹

E. R. A. SELIGMAN²

Professor Seligman here defends progressive taxation as more equitable than proportional taxation, because it involves an equality of sacrifice on the part of all social classes.

President Walker's definition of faculty is well known. Faculty, says he, is "the native or acquired power of production." But if we analyze faculty more closely, in the sense in which we instinctively use the word in tax matters, we see that it means something more than that. It not only implies native or acquired power of production, but includes at least also the opportunity of putting these powers to use, the manner in which the powers are actually employed and the results of their use as measured by periodical or permanent accretion to the producer's possessions. We have seen how the original idea was that represented by President Walker, but how this was soon supplanted by the more real and practicable tests, first of property (or permanent accretion), then of income (or periodical accretion). But, furthermore, faculty connotes an additional conception. It means not only powers of production or results of powers of production, but also the capacity to make use of these powers or these results—the capacity in other words of enjoying the results of the exertions. It is this latter conception which has been developed by recent writers, although they have carried it to an extreme just as one-sided as that represented by the advocates of the earlier theories. The elements of faculty, then, are two-fold—those connected with acqui-

¹ This selection is reprinted by kind permission of the publishers from E. R. A. Seligman, *Progressive Taxation in Theory and Practice*, Baltimore: American Economic Association, 1894, pages 190-195.

² Edwin Robert Anderson Seligman (1861-1939) was McVickar Professor of Political Economy in Columbia University.

sition or production, and those connected with outlay or consumption. What is the application to the matter in hand?

If we regard only the first set of elements, it is evident that the possession of large fortunes or large incomes in itself affords the possessor a decided advantage in augmenting his possessions. The facility of increasing production often grows in more than arithmetical proportion. A rich man may be said to be subject in some sense to the law of increasing returns. The more he has, the easier it is for him to acquire still more. The initial disadvantages have been overcome. This was pointed out already by Adam Smith when he said: "A great stock, though with small profits, generally increases faster than a small stock with great profits. Money, says the proverb, makes money. When you have got a little, it is often easy to get more. The great difficulty is to get that little." While the native power of production remains as before, this "acquired power" has greatly augmented. Hence, from this point of view faculty may be said to increase faster than fortune or income. And this element of taxable capacity would not illogically result in a more than proportional rate of taxation.

On the other hand, the elements of faculty which are connected with outlay or consumption, bring us right back again to the sacrifice theory. While the idea of faculty includes that of sacrifice, the two ideas are not coextensive. Faculty is the larger, sacrifice the smaller conception. Faculty includes two sets of considerations, sacrifice only one. Now, while the sacrifice theory in itself . . . is not sufficient to make us demand any fixed scale of progression, its influence in the other direction is certainly not strong enough to counter-vail the productive elements of faculty, which seem to imply progressive taxation. In fact, we may go further and say that the sacrifice theory, or consumption element in faculty, can certainly not be used as an argument necessarily leading to proportional taxation. If it does not lead necessarily to any definite scale of progression, much less can it lead necessarily to a fixed proportional taxation. But if we never can reach an ideal, there is no good reason why we should not strive to get as close to it as possible. Equality of sacrifice, indeed, we can never attain absolutely or exactly, because of the diversity of individual wants and desires; but it is nevertheless most probable that in the majority of normal and typical cases, we shall be getting closer to the desired equality by some departure from proportional taxation. In certain individual cases even regressive taxation might accom-

plish the result best, in other individual cases proportional taxation would be the most serviceable. But if we take a general view, and treat of the average man—and the state can deal only with classes, that is, with average men—it seems probable that on the whole less injustice will be done by adopting some form of progression than by accepting universal rule of proportion. A strictly proportional rate will make no allowance for the exemption of the minimum of subsistence. It will be a heavier burden on the typical average poor man than on the typical average rich man. It will be apt to be relatively more severely felt by the average man who has only a small surplus above socially necessary expenses, than by the average man who has a proportionally larger surplus. It will in short be apt in normal cases to disproportionately curtail the enjoyments of different social classes.

Hence, if we base our doctrine of the equities of taxation on the theory of faculty, both the production and the consumption sides of the theory seem to point to progressive taxation as at all events neither more illogical nor more unjust than proportional taxation. It may, indeed, frankly be conceded that the theory of faculty cannot point out any definite rate of progression as the ideally just rate. In so far there seems to be some truth in Mill's contention that progressive taxation cannot give that "degree of certainty" on which a legislator should act; as well as in McCulloch's assertion that when we abandon proportion we "are at sea without rudder or compass." It is true that proportion is in one sense certain, and progression is uncertain. But their argument proves too much. An uncertain rate, if it be in the general direction of justice, may nevertheless be preferable to a rate which, like that of proportion, may be more certain without being so equitable. Half a loaf is better than no bread. Stability is assuredly a good thing. But it is highly questionable whether a stability which is necessarily unjust is preferable to an instability that works in the general direction of what is recognized as justice. All governmental actions which have to do with money relations of classes are necessarily more or less arbitrary. The fines imposed by the courts, the fixing of the rates of import duties or excise taxes are always, to a certain extent, inexact. And in truth, a strict proportional tax, if we accept the point of view mentioned above, is really more arbitrary as over against the individual taxpayers, than a moderately progressive tax. The ostensible "certainty" involves a really greater arbitrariness.

So, also, the other arguments often advanced against progression seem to be in some measure destitute of foundation. The common objection that progression is confiscation because it must finally end by swallowing up the whole capital may be completely obviated, as we have seen, by making the rate of progression itself degressive; so that it would become impossible to reach one hundred per cent or any like percentage of large fortunes.

The objection that it is a fine put on industry and saving is really not applicable to progressive taxation as such, but rather to the whole system of taxation on property or income. The logical conclusion from this would be the demand for taxation only on expense; and even that would be to a certain extent a tax on industry. But it is hard to see why industry and saving should not be taxed, if it increases our capacity to pay taxes; and it is still harder to see how we can avoid taxing industry. Furthermore, it is a mistake to assume that larger fortunes are always the result of individual saving. The argument, in short, is not an argument against progression, but against taxation in general. If a moderately progressive tax is really more equitable than a strictly proportional tax, progression will be less of a fine on thrift and industry than proportion would be.

Finally, the argument that progressive taxes are not productive of revenue is not of great weight. The contention has never been urged that progressive taxes yield less than proportional taxes, but simply that they do not yield more. Now, as it has already been pointed out in a previous chapter, the function of progressive taxation is not so much to obtain increased revenues as to apportion the burden more equally among the taxpayers. If it is conceded that the progressive tax is more equitable than the proportional tax it is utterly immaterial whether it yields more revenue or not.

IN CRITICISM OF PROGRESSIVE TAXATION¹HARLEY L. LUTZ²

Professor Lutz here attacks the principle of progressive taxation mainly on the grounds that its use as a fiscal device tends to destroy the incentive to production which is considered vital to the operation of a free-enterprise system.

The advocates of progressive taxation fall into two major groups. One group consists of those who see in this method of taxation a means of providing public revenue according to some standard which they regard as equitable. In the other group are those who regard it as an excellent device for the destruction of the private enterprise system and the inauguration of a socialist regime. Unfortunately, the effects of progressive taxation are not dependent upon, nor determined by, the motives of those who believe in its use. In consequence, the first group becomes, unwittingly, a collaborator with the second group, although its members would indignantly deny any affiliation or sympathy of purpose.

Those who regard progressive taxation as a proper and suitable method of determining the respective contributions of the citizens toward the support of government usually base their case upon the ability-to-pay doctrine. They interpret this doctrine to mean that the person who has a large income is better able to pay tax than the person who has a small income. This ability, it is assumed, increases faster than the size of the income; hence it is concluded that the tax rate must likewise increase with the size of the income in order to keep pace with the growth in ability as income expands.

The difficulty with this theory is that there is no standard by which to distinguish a good progressive tax rate scale from a bad one. That is, there is no way of deciding upon the particular scale of rates and the particular size of income brackets to which these

¹ This selection is reprinted by kind permission of the publishers from *The Tax Review*, Volume IV, No. 5, New York: Tax Foundation, May, 1943, pages 17-20; and from *The Tax Review*, Volume V, No. 12, New York: Tax Foundation, December, 1944, pages 53-54.

² Harley Leist Lutz (1882-) is professor of public finance in Princeton University.

rates apply, in order to achieve the most equitable relation of tax burden to ability. It is impossible to ascertain just how much faster ability increases than income, and there can be no certainty whatever that the relation between ability and income is the same in the case of all individuals or in the case of different kinds of income. On the contrary, it is extremely likely that the ability-income ratio varies greatly among individuals having the same income, and that it varies greatly among different kinds of income. . . .

Since there is no standard whereby a choice can be made among progressive rate scales, it follows that one scale is just as good as any other as an application of the principle. A progression which rises to a tax rate of 100 per cent on all income in excess of \$25,000, or even in excess of \$5,000, is quite as defensible in terms of the vague and half-baked theory on which the entire system rests as one which imposes a top rate of 5 per cent on all income in excess of \$1,000,000. . . .

The obvious fact is that, viewed simply as a revenue device, progressive taxation is an extremely dangerous fiscal instrument for the reason that there are no natural or self-operative checks to guard against abuse. The American experience reveals that there is no degree of progression beyond which those not affected by the progressive rates would be moved to protest on the general ground of inequity. There is no convincing basis for such protest under any scale of rates, since no one knows anything about the relation of so-called ability to income. The only logical stopping place, according to the current ability theory, is at the complete equalization of incomes by a confiscation of all incomes in excess of the lowest amount received by any one. As long as any inequality of income remains, it can be as plausibly argued that these larger incomes, however small their absolute amount, indicate some excess of ability to be levied upon, as it can be that existing inequalities of income indicate differences in ability. . . .

The destructive effects of severe progressive taxation should be apparent to all who are capable of even a slight understanding of the nature and the operation of the present economic system. It is of little avail to plead that this method of taxation should never be carried to such an extreme, for experience has demonstrated that it inevitably will be so extended, since those who presumably benefit vastly outnumber those who are most affected by it. As one writer has put it, the popularity of progressive taxation is traceable in no small part to

the opportunity which it affords to place added burdens on the group which, while economically strong, is often politically weak.

Among the essentials for the vigorous operation of the private enterprise system the following are significant here:

- (1) The provision of a large and ever-increasing supply of capital;
- (2) The application of this capital in a great variety of enterprises involving varying degrees of risk.

In order to assure the requisite flow of funds into the creation of new capital and the maintenance of existing capital, it is necessary that those who successfully weather the risks involved should be permitted to keep such profits as are received as a result of that success.

Progressive taxation can be, and usually is, pushed to a point at which these conditions for the maintenance of private enterprise in a vigorous and flourishing condition can no longer be met. The virtual confiscation of all income above a moderate level robs the capital fund of its principal source of supply, and at the same time it destroys the incentive to take the risks of new or hazardous investment. Having thus paralyzed the process of private saving, investment and initiative, it becomes an easy matter for the government to assume, first, control, then ownership and direction of the economic factors of production. The most elementary principle of aggression in any sphere is to soften the opponent before engaging him in conflict. Progressive taxation is the most effective possible way of softening the enterprise system before moving in to take it over into a collectivist regime. . . .

It would seem a fair and reasonable statement that the remarkable advance of the American scale of living in the past generation has been made possible by the rise of a long list of large industries—concerns large enough to develop and apply the methods of mass production. The history of American business makes it clear that the typical and characteristic way of creating large business units is by the “plowing back” of earnings, the reinvestment of profits. It is true that in this process some persons may eventually amass substantial, even large, fortunes; but the continual growth of a business through the process of reinvestment of earnings has resulted, over and over again, in a large volume of employment, a huge total of wages, and a steadily lower price for some article which contributes to the comfort, the pleasure and the well-being of millions of consumers.

One way to visualize the paralyzing and destructive effects of progressive taxation is to assume that this kind of tax system, even with rates such as were levied in 1938 and 1939 (i.e., prior to the war tax acts) had been in effect since 1900. Then, on the basis of this assumption, one should ask: How many automobiles would this country have today and at what price would they sell?

In this writer's opinion, the answer is clear. There would be only a few and the price would be high. Certainly, there could have been no such growth and development of the automobile industry as actually did occur. The record of Henry Ford should provide convincing proof. The manner of the growth of the Ford Motor Company is well known. It was created entirely by "plowing back" the earnings. A tax system which would have taken a large part of these earnings for the current, and possibly the foolish expenditure purposes of government since 1900 would have effectively stunted the growth of this company. Such a result would have had the approval of those who set the equalization of wealth and income above every other consideration, but it would have been a great tragedy for the millions who have had their living standards expanded by the incomes created by Henry Ford and by the pleasure and convenience of the sturdy, inexpensive, highly practical automobile which this great pioneer in a great industry was able to produce.

The world of the future has many other potential products that can and should be made available for all. While the people are so shortsighted as to retain a tax system which so effectively and completely destroys both the source of the capital funds and the incentive to search out the best and cheapest form of these products as does progressive taxation, they can no more materialize than could the automobile, if Henry Ford had been obliged from the beginning, to give over to the government 88 per cent of all income in excess of \$200,000 a year.

The American people face a serious choice here, one which involves their destiny as certainly as any foreign battle field or post-war peace conference. Concretely and in terms of an historical parallel, it is the choice between the Ford fortune and the Ford automobile. If they should decide that there shall be no more fortunes, they will also thereby decide that there shall be no commodities of mass comfort and enjoyment other than those now known. A few large fortunes would appear to be a small price to pay to gain the full benefit for all of the creative and productive capacity which

can be stimulated most effectively and most certainly by allowing those who succeed to keep the fruits of their success.

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Some one has said that mankind is always standing at the cross roads of destiny, so it does not help much to say that here is another such cross road. But in any event, the parting of the ways is not always as clearly indicated as it is in the present issue. One road carries the markings of private enterprise, jobs, investment, risk-taking, and inequality of incomes, but with a rising level of incomes and well-being for all in the new prosperity. The other road carries the markings of equalization of wealth and incomes through taxation, mass unemployment, government support of the economy and eventual government ownership and control of the whole economy.

MINIMIZING THE TAX BURDEN¹

HENRY HAZLITT²

Mr. Hazlitt here argues that, when the total tax burden grows beyond a bearable size, the problem of devising taxes that will not discourage and disrupt production becomes insoluble.

There is a still further factor which makes it improbable that the wealth created by government spending will fully compensate for the wealth destroyed by the taxes imposed to pay for that spending. It is not a simple question, as so often supposed, of taking something out of the nation's right-hand pocket to put into its left-hand pocket. The government spenders tell us, for example, that if the national income is \$200,000,000,000 (they are always generous in fixing this figure) then government taxes of \$50,000,000,000 a year would mean that only 25 per cent of the national income was being transferred from private purposes to public purposes. This is to talk as if the country were the same sort of unit of pooled resources as a huge corporation,

¹ This selection is reprinted by kind permission of the publishers from Henry Hazlitt, *Economics in One Lesson*, New York: Harper and Brothers, 1946, pages 27-29.

² Henry Hazlitt (1894-) at present is financial editor of *Newsweek* magazine.

and as if all that were involved were a mere bookkeeping transaction. The government spenders forget that they are taking the money from A in order to pay it to B. Or rather, they know this very well; but while they dilate upon all the benefits of the process to B, and all the wonderful things he will have which he would not have had if the money had not been transferred to him, they forget the effects of the transaction on A. B is seen; A is forgotten.

In our modern world there is never the same percentage of income tax levied on everybody. The great burden of income taxes is imposed on a minor percentage of the nation's income; and these income taxes have to be supplemented by taxes of other kinds. These taxes inevitably affect the actions and incentives of those from whom they are taken. When a corporation loses a hundred cents of every dollar it loses, and is permitted to keep only 60 cents of every dollar it gains, and when it cannot offset its years of losses against its years of gains, or cannot do so adequately, its policies are affected. It does not expand its operations, or it expands only those attended with a minimum of risk. People who recognize this situation are deterred from starting new enterprises. Thus old employers do not give more employment, or not as much more as they might have; and others decide not to become employers at all. Improved machinery and better-equipped factories come into existence much more slowly than they otherwise would. The result in the long run is that consumers are prevented from getting better and cheaper products, and that real wages are held down.

There is a similar effect when personal incomes are taxed 50, 60, 75 and 90 per cent. People begin to ask themselves why they should work six, eight or ten months of the entire year for the government, and only six, four or two months for themselves and their families. If they lose the whole dollar when they lose, but can keep only a dime of it when they win, they decide that it is foolish to take risks with their capital. In addition, the capital available for risk-taking itself shrinks enormously. It is being taxed away before it can be accumulated. In brief, capital to provide new private jobs is first prevented from coming into existence, and the part that does come into existence is then discouraged from starting new enterprises. The government spenders create the very problem of unemployment that they profess to solve.

A certain amount of taxes is of course indispensable to carry on essential government functions. Reasonable taxes for this purpose

need not hurt production much. The kind of government services then supplied in return, which among other things safeguard production itself, more than compensate for this. But the larger the percentage of the national income taken by taxes the greater the deterrent to private production and employment. When the total tax burden grows beyond a bearable size, the problem of devising taxes that will not discourage and disrupt production becomes insoluble.

CHAPTER 25

Fiscal Policy

ON BEHALF OF FUNCTIONAL FINANCE¹

ABBA P. LERNER²

Professor Lerner here proposes that government fiscal policy be used primarily as a device to prevent inflation and eliminate depression. He believes there is little danger in a large, internally held public debt.

Fundamentally the new theory, like almost every important discovery, is extremely simple. . . .

The central idea is that government fiscal policy, its spending and taxing, its borrowing and repayment of loans, its issue of new money and its withdrawal of money, shall all be undertaken with an eye only to the *results* of these actions on the economy and not to any established traditional doctrine about what is sound or unsound. This principle of judging only by *effects* has been applied in many other fields of human activity, where it is known as the method of science as opposed to scholasticism. The principle of judging fiscal measures by the way they work or function in the economy we may call *Functional Finance*.

The first financial responsibility of the government (since nobody else can undertake that responsibility) is to keep the total rate of spending in the country on goods and services neither greater nor less than that rate which at the current prices would buy all the goods that it is possible to produce. If total spending is allowed to go above this there will be inflation, and if it is allowed to go below this there will be unemployment. The government can increase total spending by spending more itself or by reducing taxes so that the taxpayers

¹ This selection is reprinted from *Social Research*, Volume X, No. 1, February, 1943, pages 39-41; from the *Economics of Control*, New York: The Macmillan Company, 1946, pages 302-305; and *Social Research*, *op. cit.*, pages 50-51. It is here reproduced by kind permission of both publishers and author.

² Abba Ptachya Lerner (1903-) is professor of economics in Roosevelt College.

have more money left to spend. It can reduce total spending by spending less itself or by raising taxes so that taxpayers have less money left to spend. By these means total spending can be kept at the required level, where it will be enough to buy the goods that can be produced by all who want to work, and yet not enough to bring inflation by demanding (at current prices) *more* than can be produced.

In applying this first law of Functional Finance, the government may find itself collecting more in taxes than it is spending, or spending more than it collects in taxes. In the former case it can keep the difference in its coffers or use it to repay some of the national debt, and in the latter case it would have to provide the difference by borrowing or printing money. In neither case should the government feel that there is anything especially good or bad about this result; it should merely concentrate on keeping the total rate of spending neither too small nor too great, in this way preventing both unemployment and inflation.

An interesting, and to many a shocking, corollary is that taxing is *never* to be undertaken merely because the government needs to make money payments. According to the principles of Functional Finance, taxation must be judged only by its effects. Its main effect are two: the taxpayer has less money left to spend and the government has more money. The second effect can be brought about so much more easily by printing the money that only the first effect is significant. Taxation should therefore be imposed only when it is desirable that the taxpayers shall have less money to spend, for example, when they would otherwise spend enough to bring about inflation.

The second law of Functional Finance is that the government should borrow money only if it is desirable that the public should have less money and more government bonds, for these are the *effects* of government borrowing. This might be desirable if otherwise the rate of interest would be reduced too low (by attempts on the part of the holders of the cash to lend it out) and induce too much investment, thus bringing about inflation. Conversely, the government should lend money (or repay some of its debt) only if it is desirable to increase the money or to reduce the quantity of government bonds in the hands of the public. When taxing, spending, borrowing and lending (or repaying loans) are governed by the principles of Functional Finance, any excess of money outlays over money rev-

enues, if it cannot be met out of money hoards, must be met by printing new money, and any excess of revenues over outlays can be destroyed or used to replenish hoards.

The almost instinctive revulsion that we have to the idea of printing money, and the tendency to identify it with inflation, can be overcome if we calm ourselves and take note that this printing does not affect the amount of money *spent*. That is regulated by the first law of Functional Finance, which refers especially to inflation and unemployment. The printing of money takes place only when it is needed to implement Functional Finance in spending or lending (or repayment of government debt).

In brief, Functional Finance rejects completely the traditional doctrines of "sound finance" and the principle of trying to balance the budget over a solar year or any other arbitrary period. In their place it prescribes: first the adjustment of total spending (by everybody in the economy, including the government) in order to eliminate both unemployment and inflation, using government spending when total spending is too low and taxation when total spending is too high; second, the adjustment of public holdings of money and of government bonds, by government borrowing or debt repayment, in order to achieve the rate of interest which results in the most desirable level of investment; and, third, the printing, hoarding or destruction of money as needed for carrying out the first two parts of the program.

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. . . As soon as it is recognized as a duty of the government—perhaps even the primary duty of the government—to ensure the maintenance of full employment, and that any so-called principle of "sound finance" that might interfere with this task can have no possible justification, the instruments by which full employment can be maintained stand out clear and unmistakable. But the recognition of these instruments is impossible until some exceptionally powerful and firmly established prejudices have been removed. . . .

The first of these is the unwillingness to see that the size of the national debt (when held by citizens of the country) is a matter of almost no significance beside the importance of maintaining full employment. The national debt is not a burden on posterity because if posterity pays the debt it will be paying it to the same posterity that

will be alive at the time when the payment is made. The national debt is not a burden on the nation because every cent in interest or repayment that is collected from the citizens as taxpayers to meet the debt service is received by the citizens as government bondholders. The national debt is not a sign of national poverty any more than the certificates of ownership of government bonds are a sign of national wealth—the two amounts exactly cancel out in any measure of the national wealth. Just as increasing the national debt does not make the nation poorer, so repaying the national debt does not make the nation richer. It is not true that the national debt “must be repaid sometime” any more than it is true that all the banks must call in all their debts and repay their depositors on some catastrophic day or that all firms and corporations will have to be dissolved someday to repay the obligations to the individuals who invested in them. Every individual buyer of government bonds must be able to get his money when it is due, but another lender can take his place when this happens (if the individual should not wish to renew his loan) and the national debt can continue—just as the forest can go on forever even though every tree in it must ultimately fall. . . .

Nor is it true that the *interest* on the internally owned national debt is a burden on the nation. The interest payments are not lost to the nation. They are merely transferred to the recipient from taxpayers or from new lenders, and if it should be difficult or undesirable to raise taxes the interest payment can be met, without imposing any burden on the nation as a whole, by borrowing the money or printing it. The prejudice against printing money and against borrowing seem to be much stronger when the purpose is to pay interest than when printing or borrowing is undertaken for any other purpose. The effects are, however, exactly the same. . . .

The view that the national debt is something bad that should be avoided or minimized, when in truth it is in itself neither good nor bad, is built on two great misconceptions. The first is to regard the nation, or the government that represents it, as a business concern which is likely to get into difficulties if it gets too much into debt. It may then not be able to meet its obligations and be forced into bankruptcy. This is nothing but the perfectly sound advice given by Mr. Micawber to all traders and normal business concerns. But neither the nation nor the government is a normal business concern or even an ordinary trader, like Mr. Micawber, in daily fear of the debtor's prison and the bailiffs. The government, even if it does not

want to raise the money by taxes, can always meet its obligations to any citizen by borrowing from another citizen or by printing the money to pay him. The nation cannot be thrown into a debtor's prison or debarred by a bankruptcy order from continuing its business. The weird notion of a country "going bankrupt" because it has a great internal debt can only be explained as the result of private capitalists building up a conception of the state in their own image and impressing this capitalist mythology on the other members of the capitalist society. . . .

The other great misconception lies in looking at only one side of the debt-credit relationship. Every debt has a corresponding credit because there must be someone to whom the debt is owed. When a business or a corporation incurs an obligation this is usually called an investment by the individual who put up the money. The sum of such investments is often held up as an indication of the wealth of the country. "The United States has invested some 200 billion dollars in business corporations; this shows how rich a country it is." When the government incurs an obligation it is looked upon not from the point of view of the purchaser of the government security, when it would appear as a credit, but from the point of view of the government where it is written on the other side of the ledger and appears as debit or debt. It is then held up as an indication of national poverty. It would be no whit more unreasonable to reverse the procedure and say that the United States could be a very rich country, witness the 80 billions of government securities that the citizens of the country own, were it not that the businesses and corporations are in debt to the tune of 200 billions. Of course both of these procedures are nonsensical since neither the governmental nor the private debt gives any indication of the nation's real wealth, which resides in the skill and industry of its inhabitants and in the natural resources and equipment with which these can cooperate. . . .

All this is true, of course, only of internally held national debt. Increasing debt to other countries or to the citizens of other countries does indicate impoverishment of the borrowing country and enrichment of the lending country. Of this kind of debt the popular criticism is valid. When a country borrows from another country, that is something like when one man borrows from another or when one business borrows from another. The borrower is able, by this borrowing, to consume more than he produces and has to consume less than he produces later when he repays the debt. Neither of these is

true of internal borrowing or the repayment of internally held debt. The country cannot by monetary manipulations consume more than it can produce, as every country is acutely aware at this time. And just as the internal borrowing does not really give the country anything that it did not have to begin with, the repayment of the debt or the payment of interest does not take away anything from the country as a whole.

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If the propositions of Functional Finance were put forward without fear of appearing too logical, criticisms like those discussed above would not be as popular as they now are, and it would not be necessary to defend Functional Finance from its friends. An especially embarrassing task arises from the claim that Functional Finance (or deficit financing, as it is frequently but unsatisfactorily called) is primarily a defense of private enterprise. In the attempt to gain popularity for Functional Finance, it has been given other names and declared to be essentially directed toward saving private enterprise. I myself have sinned similarly in previous writings in identifying it with democracy, thus joining the army of salesmen who wrap up their wares in the flag and tie anything they have to sell to victory or morale.

Functional Finance is not especially related to democracy or to private enterprise. It is applicable to a communist society just as well as to a fascist society or a democratic society. It is applicable to any society in which money is used as an important element in the economic mechanism. It consists of the simple principle of giving up our preconceptions of what is proper or sound or traditional, of what "is done," and instead considering the *functions* performed in the economy by government taxing and spending and borrowing and lending. It means using these instruments simply as instruments, and not as magic charms that will cause mysterious hurt if they are manipulated by the wrong people or without due reverence for tradition. Like any other mechanism, Functional Finance will work no matter who pulls the levers. Its relationship to democracy and free enterprise consists simply in the fact that if the people who believe in these things will not use Functional Finance, they will stand no chance in the long run against others who will.

THE DANGERS OF FUNCTIONAL FINANCE¹HARLEY L. LUTZ²

Professor Lutz here points to the dangers inherent in both the practical and philosophical aspects of functional finance. As an alternative, he proposes the annually balanced budget as a safer and sounder fiscal policy for the government.

"Vice is a monster of such frightful mien
As to be hated, needs but to be seen;
Yet, seen too oft, familiar with her face,
We first endure, then pity, then embrace."

If the term "deficit finance" be substituted for vice in this stanza from Pope's *Essay on Man*, a text is provided for this essay. When the federal deficits began, they were hated. "Too often democracies have been wrecked on the rocks of loose fiscal policy." But in time, the face became familiar. The deficits were endured for a time as a necessary evil, but we apologized for them and promised to end them soon. The next stage was pity, because the national income had not gone up enough to enable us to get rid of the deficits that had been incurred in the effort to boost the national income. In other words, we felt sorry that we could not lift ourselves by the bootstraps.

At last, deficit financing was embraced as a good thing in itself. Any lingering sense of guilt was removed by the fiscal medicine men and "yarb" doctors from abroad and from our own universities who assured us that we were not really living in sin.

The first intimation that what had been mistaken for dissolute fiscal conduct was, in reality, a Puritanical standard of fiscal behavior, came with the announcement of a new financial philosophy. This new philosophy was given its premier before T.N.E.C. Its main tenet is that taxation, spending and borrowing are to be viewed as

¹ This selection is reprinted by kind permission of the publishers from *The Tax Review*, Volume V, No. 1, January, 1944, pages 1-6; and from *The Tax Review*, Volume VII, No. 2, February, 1946, page 8.

² Harley Leist Lutz (1882-) is professor of public finance in Princeton University.

instruments of policy. The central policy of government is to be such manipulation of the level of prices, the volume of employment and the flow of income as will serve the aims and purposes of the clique or gang that is doing the manipulating.

Adam Smith disposed of this kind of paternalism in the following:

What is the species of domestic industry which his capital can employ, and of which the produce is likely to be of the greatest value, every individual, it is evident, can, in his local situation, judge much better than any statesman or lawgiver can do for him. The statesman, who should attempt to direct private people in what manner they ought to employ their capitals, would not only load himself with a most unnecessary attention, but assume an authority which could safely be trusted, not only to no single person, but to no council or senate whatever, and which would nowhere be so dangerous as in the hands of a man who had folly and presumption enough to fancy himself fit to exercise it.

The changed position of government which this new fiscal theory calls for means nothing less than a transition of political theory from the Anglo-American conception of government as an institution set up to perform certain community services to the Germanic conception of the state as the master. Instead of men being relatively free to take risks, to make mistakes, and to live, as Elbert Hubbard said, so as to be able to look any man in the eye and tell him to go to Hell, the people are to be marshalled, regimented, told when to spend, or to lend to the government or to pay taxes, according to some master plan. Dr. A. P. Lerner put the capstone on this new doctrine in saying that Functional Finance

. . . is not especially related to democracy or to private enterprise. It is applicable to a communist society just as well as to a fascist society or a democratic society. . . . Like any other mechanism, Functional Finance will work no matter who pulls the levers. Its relation to democracy and free enterprise consists simply in the fact that if the people who believe in these things (i.e., democracy and free enterprise) will not use Functional Finance, they will stand no chance in the long run against others who will.

Germany, Japan and Italy did lay the groundwork for enormous inflation, but the assets acquired through conquest, together with autocratic control of wages and prices, tended for a time to defer inflation and validate the credit expansion. When these ill-gotten

assets are stripped away again, we shall see how flimsy is the real support of their respective debt structures.

The key to this fantastic doctrine is the public debt, which is to be expanded or contracted in the degree required to maintain stability of employment, prices and production. In a free enterprise economy the market is the regulator which determines, through the price mechanism, the character and quantity of goods to be produced. The new fiscal theory would replace the market by the public debt as the regulator of economic activity. In Dr. Alvin Hansen's view, private enterprise can produce, but it cannot insure continuous and sustained demand. He holds that only government can do this, so the result is a kind of cooperation in which business produces the goods and government creates the balance of the purchasing power needed to buy them.

The goal is full employment, a subject which has been approached usually in an emotional state bordering on hysteria. In all of the discussion that has so far occurred, there has been no reference whatever to the level or rate of wages. If the planners mean that we must henceforth provide full employment at war wages, we can agree at once that this is possible only through a large federal subsidy. An indefinite increase of the debt and a steady inflation of prices, would be inevitable.

On the other hand, if full employment means work for all at such wage as may be determined by equating the supply of labor and the demand for it, we need not be seriously concerned about unemployment even if there should be a depression. The deficits of the 1930's were incurred principally to subsidize wage levels that were unreal and artificial at the time. The housing subsidies are necessary mainly because of high level wage rigidities and output restrictions in the building trades. A dismissal wage is usually a subsidy to the high wage rates of those who remain on the job. It is clear that there can be no flexibility of prices or of business plans unless there can also be wage flexibility. The new fiscal thesis is the more dangerous because it would use the public debt as the cushion and shock absorber against the rigidities that have been embedded in the economic system by group pressures, special legislation, and the reluctance of everyone to face unpleasant facts.

While the doctrine includes the assumption that the debt will decrease at certain times, the practical result is almost certain to be that there will be no net reduction. Debt retirement requires surplus

revenues, and now that the people have learned how pleasant and easy it is to be supported by the government, they are not likely to consent to a curtailment of the bread and circuses just to redeem debt. . . .

Dr. Lerner uses the term "Functional Finance" to describe the so-called principle of judging fiscal measures by the way they work or function in the economy. Two laws of Functional Finance were stated in the essay under review. The first law is as follows:

It is the responsibility of the government to keep the total rate of spending in the country on goods and services neither greater nor less than that rate which at the current prices would buy all the goods that it is possible to produce.

The following comments are offered on this "law":

1. Even if government wanted to, it could not control the rate of spending since it cannot determine the velocity of circulation. It could regulate the total demand for goods only by drastic rationing, if the demand were keen, or by purchasing all dead stocks, the slow-moving items on all shelves from the department store to the crossroads general store, and all surpluses everywhere not saleable at the current prices, if private demand were too sluggish.

2. The so-called law evidently regards the current price level as a bench mark not to be changed, and indeed its unchangeability is important to the whole scheme. Just how much flexibility is to be allowed to individual prices is not indicated, but it must be clear that the quantity of goods which it is possible to produce is governed by the prices at which they can be sold.

3. The volume of goods that it is possible to produce is highly variable, depending, among other things, on the supply of capital and labor, on the number who want to work instead of collect a dole, on the incentives offered to enterprise, on various governmental policies, etc. Full employment appears to be an important objective and maximum production is evidently deemed to be reached when all who want to work are engaged. But Lerner is as silent as Hansen about the wages and hours of employment. . . .

The second so-called law of Functional Finance, as announced by Dr. Lerner, is that the government should borrow money only if it is desirable that the public should have less money and more government bonds. He adds that this might be desirable if otherwise the rate of interest would be reduced too low and induce too much investment, thus bringing about inflation.

This proposition also requires comment.

1. Who is to decide between the desirability of bonds versus money in the hands of the people? It has already been proposed that when the people are deemed to have too much money, their taxes are to be raised. Perhaps the OPA, in view of its distinguished record in point-rationing, could be asked to fix the point values of government bonds along with those for gasoline and tomato soup.

2. Suppose that the people prefer money to more government bonds. Does this mean resort to the technique so successfully used by Hitler, Mussolini and Franco in confiscating the forms of private wealth which they did not want the people to own?

3. What is the evidence to show an increase in the volume of investment with a decline in the rate of interest?

4. When did over-investment produce inflation? Perhaps the author is thinking of stock market speculation. When the term investment is correctly used it means an application of funds which results in additions to capital equipment and productive capacity. Such additions, by increasing the output of goods and services, tend to prevent inflationary price increases.

It is said that Functional Finance rejects completely the traditional doctrines of "sound finance" and the principle of trying to balance the budget in any year or any arbitrary period. Under the taxing, spending, borrowing and lending policies advocated, any excess of money outlays over money receipts must be met, it is said, by printing new money. Resort to the bank loan or to the printing press will not cause inflation under this theory because the excess money can be pulled in by taxation and destroyed or hoarded. . . .

In this fantastic program, the terms "tax" and "taxation" should not be used, for they mean and connote an attitude by government toward the resources of the people which has entirely disappeared in Dr. Lerner's plan. If we no longer intend, by the word tax, to mean contributions collected to defray the cost of public services, then we should find a new term to describe what is proposed. An appropriate one is "confiscation."

Likewise, the word "bond" should be dropped, for that word has always meant a pledge or promise to repay a certain value in future in exchange for a given value obtained today. If the term "forced loan" were substituted, it would seem more appropriate to pay the

interest on such a loan by compelling the holder to accept fiat currency, which is simply another form of the forced loan.

One thing that the scheme lacks is a parallel to OPA, which should be called OMA, or Office of Money Administration. Its function would be to curb the black market that would emerge in the phoney printing press money, where people were trying to get rid of it for less than its face value.

One of the gravest perils of the postwar period will be those planners who are either ignorant of or indifferent to history. There is little reason to fear the adoption of Functional Finance even though our ultimate downfall is forecast before some rival nation that has discovered what it thinks is bootstrap levitation. We do have to remember that there is a hard way as well as an easy way to solve our problems, and that the hard way is very likely to be the safe way. If the abuse of public credit and the printing press is really as safe as it appears to be easy, there would be no occasion to emphasize such historical phenomena as the Continental currency, the French Assignats, the United States Greenbacks or the German Reichsmark. All schemes for fiscal Utopia overlook the one basic fact about the kind of economic world we live in—"There is no free lunch." This fact is as applicable to a socialistic or communistic society as it is to a democracy.

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It follows, therefore, that we have no valid basis on which to rationalize the existing public debt as a beneficent influence. It should be recognized as a serious problem. Instead of adding to it, even for purposes of such primary importance as the relief of unemployment, we should plan to deal with this and other problems in ways that will avoid further debt increase. Once we shall have agreed that this apparently easy way of meeting even the real emergencies, not to mention the many imaginary ones, is to be hereafter closed, we can face up to the job of handling them inside the budget. And this, in the long run, will really be the easy way.

CHAPTER 26

War Finance

HOW TO PAY FOR THE WAR¹

JOHN MAYNARD KEYNES²

Mr. Keynes here proposes a scheme of compulsory savings as a method of war finance. He believes his plan to guarantee more social justice and greater social efficiency in checking wartime inflation than could be achieved by resorting either to taxation or borrowing.

I. THE CONTROL OF CONSUMPTION

It is the declared policy of the Government to keep the prices of consumption goods as near as they can to the pre-war level. If they succeed, it follows that the purchasing power of the working classes will command in the aggregate substantially more goods than before even if a general rise of wages is avoided. And if a further rise of wages is allowed to compensate for any higher cost of living resulting from this expansion of demand, the situation will be correspondingly aggravated. For all that the outside observer can observe, the problem thus created—the central problem of the home economic front, a problem which requires for its solution the coordination of price policy, budget policy, and wages policy—has not yet been faced. . . .

Remedies

There are three genuine ways of reaching equilibrium, and two pseudo-remedies. The first pseudo-remedy is by rationing. If there

¹ This selection is reprinted by kind permission of the publishers from two special articles, entitled "I. The Control of Consumption" and "II. Compulsory Savings—A Detailed Plan," which appeared in *The Times of London*, November 14, 15, 1939.

² John Maynard Keynes (1883–1946), sometime fellow in Kings College, Cambridge, was an outstanding British economist and statesman, and is regarded as one of the most controversial figures in the history of 20th century economic thought.

is so great a relative lack of an essential article of consumption that a reasonable rise in price cannot restore equilibrium between supply and demand, we must have recourse to rationing. But against a general increase of purchasing power rationing is useless. It merely serves to divert demand from the rationed to the unrationed article. Rationing is always a bad method of control because it has to go on the assumption that every one normally spends the same amount on a given article; and, even apart from the intolerable bureaucratic burden which is involved, this characteristic puts out of court a system of universal rationing applied to all articles. The second pseudo-remedy is an anti-profiteering measure, which exalts into undue prominence the least significant cause of rising prices. Therefore those whose first thoughts run to rationing and anti-profiteering have not begun to discern the real nature of the problem—namely, that the aggregate of purchasing power is increasing faster than the available supply of goods.

Let us turn to the three genuine remedies. All of them will have to be applied in some measure, but the degree to which we depend on each it is more difficult to decide. The first is to allow prices to rise. Some rise in prices is inevitable. Indeed, in spite of all efforts to the contrary, the cost of living has risen by $6\frac{1}{2}$ per cent, in the first month of the war. . . . But if we were to depend on this remedy alone, the rise in prices sufficient to restore equilibrium would be beyond all reason and endurance. The yield of the excess profits tax would gain, but most of the other consequences would be bad. We cannot avoid the "vicious spiral" of rising prices and wages merely by attending to the cost of living; for the first step of the spiral's ascent can begin just as well at the wages end, and this, perhaps, is what happens more often. But an excessive rise of prices will assuredly set such a process in motion. Apart from this, there are grave disadvantages in this method, except in strict moderation. A rising cost of living puts an equal proportionate burden on every one, irrespective of his level of income, from the old-age pensioner upwards, and is a cause, therefore, of great social injustice. Moreover it is largely futile unless we recast our wages system. The rise in prices helps only to the extent that it is greater than the rise in wages. But there are to-day many wage-rates linked by agreement with the cost of living, so that the two move together.

The second genuine remedy is taxation. But to help solve our present problem it must involve taxation of the working classes.

Three-fifths of the net expenditure on consumption (after deducting normal saving and taxation) is by those whose incomes are less than £250 a year, and it is this class whose incomes are likely to rise by upwards of 15 per cent. . . .

Ethics of Borrowing

The price remedy and the taxation remedy are alike in depriving the working class of any benefit from their increased earning. Yet a large portion of the earnings now in question represents increased effort on their part. The third remedy is free from this objection.

It is conventional nowadays to talk about the justice and wisdom of paying for a war almost entirely out of current taxation without borrowing. We all know that such a thing is impossible; but many people seem to think that it would be just and wise to do it if we could. The argument is that the major part of the expenditure has to be met out of increased current effort and diminished current consumption, so that for the community as a whole it makes no real difference how it is financed, while the method of taxation avoids future complications. But a little reflection will show that the reason why it is impossible entirely to refrain from borrowing is also a reason why it would not be just and wise to do so. It makes all the difference in the world to each individual personally whether the excess of his income over his consumption is taken from him by tax or by loan. To him personally Government stock is an addition to his wealth, to his security, and to his comfort in facing the future. It gives him a claim over the future resources of the community. Someone will have to meet this claim. But this someone is not necessarily himself, and, even if it were, it may suit him better and involve less sacrifice to part by instalments with his personal resources and to possess meanwhile a title to wealth which he can realize in case of need. Moreover, even in war we cannot afford to dispense altogether with the economic incentive to effort—which a too exclusive financing by taxation would involve. We have already got dangerously near to this in the case of the entrepreneurs, and we must not make the same mistake with the working classes. There is a fatal family resemblance between bureaucracies in Moscow, Berlin, and Whitehall; and we must be careful.

The community at war cannot allow the individuals of the working class to make a greater immediate demand on the national re-

sources than hitherto; and it may have to ask of them a reduction. But that is no reason why they should not be rewarded by a claim on future resources. For the individual that is what wealth is. If it is physically impossible to reward the labour of the working class by immediate consumption, we should welcome and not reject the opportunity thus given to make its members individually wealthier.

The third remedy, therefore, is to distinguish two kinds of money-rewards for present effort—money which can be used, if desired, to provide immediate consumption, and money the use of which must be deferred until the emergency is over and we again enjoy a surplus of productive resources—that is to say, current cash on the one hand and on the other a blocked deposit in the Post Office Savings Bank. This is the general idea behind the third remedy. Part payment by the second kind of money is, during the emergency, the only way by which the real earnings of the working class can be increased. Can their leaders be made to see clearly this elementary fact? To the details of a proposal on these lines I will proceed in a second article.

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II. COMPULSORY SAVINGS—A DETAILED PLAN

At the end of our first article we were left with the conclusion that the working class, taken as a whole, can only enjoy an increase in real earnings if they are prepared to accept deferred payment. Each individual may dislike postponing his own consumption, but he will gain from a similar postponement by his fellows. If every one spends, prices will rise until no one is better off. The increased earnings of the working class will not have benefited them one penny, but will have escaped through higher prices and higher profits, partly into taxation and partly into the savings of the entrepreneur class. Here, therefore, is the perfect case for compulsion; for general compulsion will benefit all its victims alike. A chance is given us to use the opportunity of war finance—an opportunity always missed hitherto—to increase the individual resources of the working class and not merely of the entrepreneur class.

The following are the details of my proposal:

(1) A percentage of all incomes in excess of a stipulated minimum income will be paid over to the Government, partly as compulsory savings and partly as direct taxes. The percentage taken will rise steeply as the level of income increases. . . .

(3) A part of this amount will be credited to the individual as a deposit in the Post Office Savings Bank. The balance will be used to discharge his income-tax and surtax, if any. The percentage of the levy credited as a savings deposit will fall, and the percentage taken as taxes will obviously rise, as the level of income increases. . . .

(4) The sums credited in the Savings Bank, which will carry $2\frac{1}{2}$ per cent interest, will be blocked for the time being, and will not be available, generally speaking, for current expenditure or as security against loans. But the holder will be allowed to use them to meet prewar commitments of a capital nature, such as instalments to a building society, or for hire-purchase, or to meet insurance premiums. He can also use them, with the approval of a local committee, to meet exceptional and unavoidable expenses, arising, for example, out of illness or unemployment. They would be available to meet death duties.

After the War

(5) The deposits will be unblocked and made freely available to the holder, probably by a series of instalments, at some date after the war. The appropriate date for release would have arrived when the resources of the community were no longer fully engaged. Such releases would help us through the first post-war slump, and give us time to concert more permanent plans. There would be perfect efficiency in this. The people could enjoy the consumption to which their war efforts had entitled them at a time when this would cost the community nothing, since the resources required would otherwise be running to waste. . . .

(8) This scheme would not obviate a programme of normal borrowing out of voluntary savings additional to the above. For resources will accrue in the hands of banks, insurance offices, and the like; and Government loans can be subscribed out of company reserves, out of unexpended depreciation moneys, out of sinking funds and sundry repayments, and out of capital released by the sale of foreign investments, and the reduction of stocks, none of which will be subject to the levy. To some extent the levy will obviously come out of income which would be saved in any case. No more can be claimed for it than that it would appreciably ease the Treasury's task.

(9) It might be thought fair that those serving with the Forces should be credited with additional pay by the same method. We

cannot afford to pay them more now, but we can afford them the reward of deferred consumption.

The Alternatives

I see much social justice and social efficiency in this system. At present our resources of production fall short of our needs; the time will come when the position will be reversed; and it is therefore only sensible to reward current effort out of future surplus capacity. Meanwhile we retain a reasonable incentive to present effort, and the commitments of the community among its own members are spread a little more equally.

In judging this scheme critics must compare it with the alternatives. The income group between £3 and £10 a week is scarcely touched by direct taxation and cannot be relied on to restrict its consumption when its incomes are increasing. Some method must therefore be found for restricting the use of purchasing power on present consumption, which covers this group. Are there any alternatives except those which we have considered? The method of compulsory saving is incomparably better for the class with incomes below £500 than to deprive them of their reward by high prices or taxing, while for the higher incomes the practicable limit of direct taxation is already reached. Moreover there will be great social advantages in spreading the inevitable increase in the National Debt widely among every class in the community.

All methods of war finance are open to objections. But this new one offers some positive advantages on the other side which will not go unnoticed, I hope, by the leaders of the Labour Party. If the Chancellor of the Exchequer does not deliberately choose a positive method he will inevitably slip into inflation merely by hesitating.

SECTION XI

International Trade

INTERNATIONAL TRADE—THOUGH SIMPLE IN THEORY—in practice gives rise to difficult political and economic problems. In part, these problems arise due to the existence of national sovereignty and their solution is vastly complicated by the exercise of that national sovereignty. For, national sovereignty implies 1) the enclosure of each nation within definite political boundaries in which it necessarily exercises exclusive economic jurisdiction; and 2) the use of a standard of value and medium of exchange which, as a rule, is different from that used by other nations. These aspects of national sovereignty are significant, in turn, because they impart to the individual nation the power 1) to admit foreign-made goods without restriction or to impose punitive levies such as tariffs or import quotas on their purchase by its citizens; and 2) to affect the rate at which its own currency will exchange for that of other nations with whom it maintains commercial intercourse. It is around these implications of national sovereignty—import restrictions and the determination of exchange rates—that the most heated controversies in international trade cluster.

IMPORT RESTRICTIONS

During the heyday of mercantilism in the 17th and 18th centuries, it was generally believed that one nation's gain in trade was another's loss. Each nation tried to export more than it imported in order to maintain a "favorable" balance of trade and to induce a net inflow of the precious metals. To this end, restrictions of all sorts were imposed on international trade and justified on the grounds that only through such means could a nation's stock of gold and silver, and hence its wealth, be increased.

It was Adam Smith who, in his *Wealth of Nations*, tried to prove that a country's wealth did not consist of gold and silver but rather of an abundant supply of goods and services. Smith clamored for the establishment of free trade and urged the removal of all barriers to unfettered exchange of goods both in the domestic and the inter-

national sphere. For, only by allowing each nation to specialize in the production of those goods where it held a comparative advantage and to import those goods in the production of which it suffered from a comparative disadvantage, could the wealth of the nation be increased. Tariffs, import restrictions and similar devices—he argued—could only serve to destroy the optimum allocation of resources on a world-wide scale and deprive nations—individually and collectively—of the benefits of regional specialization and exchange.

By 1860, the free traders had achieved a large measure of success. England had become a free trade nation. The mercantilistically inspired Navigation Laws and Corn Laws had been repealed. But the battle had not yet been won, for the economic principles underlying the free trade policy had not found universal acceptance and acclaim. There arose special interest groups—manufacturers, farmers, laborers—who opposed the free and unrestricted importation of foreign goods. They stressed the injury done to domestic producers and urged adoption of the tariff as a protective device for the shielding of national interests. Friedrich List in Germany and Henry C. Carey in the United States pioneered in rationalizing protective policies, formulating theoretical economic precepts to show the dichotomy between the interests of an individual nation and those of mankind as a whole. The political challenge of the protectionists has never successfully been met—i.e. as a matter of practical policy—and to this day the controversy between the advocates of protection and free trade continues with unabated fury.

EXCHANGE RATES

The other major problem in international trade, which has been a source of frequent debate and controversy, is the problem of stable exchange rates. During the 19th, and the early part of the 20th, century the automatic gold standard provided relatively stable exchange rates for most countries engaged in international trade. The value of the British pound, for example, never fluctuated more than between \$4.83 and \$4.89, i.e. between the so-called gold points; (for any threatened change in the pound's value beyond the gold points would have immediately initiated a flow of gold into or out of Great Britain, thus forcing the exchange rate between dollars and pounds back into line).

But while the gold standard succeeded in maintaining stable exchange rates between national currencies, it often failed to prevent

violent fluctuations in the level of domestic prices, production, and employment; for the flow of gold out of a country tended to cause deflation, while the flow of gold into a country tended to produce inflationary effects. It was partially for this reason that, during the depression of the 1930's, some countries—led by Great Britain and the United States—decided to abandon the international gold standard. No longer did these countries want to see their monetary systems inflexibly tied to gold. Neither did they want to permit monetary policies—designed to stabilize the domestic economy—to be “sacrificed” on the golden altar of stable international exchange rates. The 1930's, therefore, witnessed the introduction of various “managed currency” schemes, the object of which was to insure domestic stability and the result of which was largely the destruction of stable exchange rates as determined by an automatic adjustment mechanism.

Toward the end of World War II, 44 nations of the world decided to devise ways and means for reconstructing international trade, during the post-war era, on a sound and profitable basis for all nations concerned. In 1944, these nations met at Bretton Woods, New Hampshire, in an attempt to reconcile the apparent conflict between stable exchange rates, on the one hand, and domestic stability, on the other. The product of their efforts is embodied in a series of agreements setting up the International Monetary Fund and the World Bank for Reconstruction and Development, reaction to which in economic circles has ranged from enthusiasm and hope to pessimism and doubt. One thing is certain: the experiment is a daring one; yet only time will tell how successful these new institutions will be in solving the basic problem surrounding exchange rates and in expanding the volume of international trade.

CHAPTER 27

The Case for Free Trade

PETITION OF THE MANUFACTURERS OF CANDLES¹

FREDERIC BASTIAT²

With some irony and sarcasm Frederic Bastiat here ridicules arguments in favor of protective tariffs, showing how producer interests are shielded at the expense of consumer welfare.

PETITION FROM THE MANUFACTURERS OF CANDLES, WAX LIGHTS, LAMPS, CHANDELIERS, REFLECTORS, SNUFFERS, EXTINGUISHERS; AND FROM THE PRODUCERS OF TALLOW, OIL, RESIN, ALCOHOL, AND GENERALLY OF EVERYTHING USED FOR LIGHTS

To the Honorable the Members of the Chamber of Deputies:

GENTLEMEN—You are in the right way: you reject abstract theories; abundance, cheapness, concerns you little. You are entirely occupied with the interest of the producer, whom you are anxious to free from foreign competition. In a word, you wish to secure the *national market to national labor*.

We come now to offer you an admirable opportunity for the application of your—what shall we say? your theory? no, nothing is more deceiving than theory—your doctrine? your system? your principle? But you do not like doctrines; you hold systems in horror; and, as for principles, you declare that there are no such things in political economy. We will say, then, your practice; your practice without theory, and without principle.

We are subjected to the intolerable competition of a foreign

¹ This selection is reprinted from *Economic Sophisms*, New York: George P. Putnam and Sons, 1882.

² Frederic Bastiat (1801–1850), an ardent free trader, was an outstanding Continental exponent of doctrines of the English Classical School.

rival, who enjoys, it would seem, such superior facilities for the production of light, that he is enabled to *inundate* our *national market* at so exceedingly reduced a price, that, the moment he makes his appearance, he draws off all custom for us; and thus an important branch of French industry, with all its innumerable ramifications, is suddenly reduced to a state of complete stagnation. This rival, who is no other than the sun, carries on so bitter a war against us, that we have every reason to believe that he has been excited to this course by our perfidious neighbor England. (Good diplomacy this, for the present time!) In this belief we are confirmed by the fact that in all his transactions with that proud island, he is much more moderate and careful than with us.

Our petition is, that it would please your honorable body to pass a law whereby shall be directed the shutting up of windows, dormers, skylights, shutters, curtains, *vasistas*, *oeil-de-boeufs*, in a word, all openings, holes, chinks, and fissures through which the light of the sun is used to penetrate into our dwellings, to the prejudice of the profitable manufactures which we flatter ourselves we have been enabled to bestow upon the country; which country cannot, therefore, without ingratitude, leave us now to struggle unprotected through so unequal a contest.

We pray your honorable body not to mistake our petition for a satire, nor to repulse us without at least hearing the reasons which we have to advance in its favor.

And first, if, by shutting out as much as possible all access to natural light, you thus create the necessity for artificial light, is there in France an industrial pursuit which will not, through some connection with this important object, be benefited by it?

If more tallow be consumed, there will arise a necessity for an increase of cattle and sheep. Thus artificial meadows must be in greater demand; and meat, wool, leather, and above all, manure, this basis of agricultural riches, must become more abundant.

If more oil be consumed, it will cause an increase in the cultivation of the olive tree. This plant, luxuriant and exhausting to the soil, will come in good time to profit by the increased fertility which the raising of cattle will have communicated to our fields.

Our heaths will become covered with resinous trees. Numerous swarms of bees will gather upon our mountains the perfumed treasures which are now cast upon the winds, useless as the blossoms from which they emanate. There is, in short, no branch of agricul-

ture which would not be greatly developed by the granting of our petitions.

Navigation would equally profit. Thousands of vessels would soon be employed in the whale fisheries, and hence would arise a navy capable of sustaining the honor of France, and of responding to the patriotic sentiments of the undersigned petitioners, candle merchants, etc.

But what words can express the magnificence which Paris will then exhibit! Cast an eye upon the future and behold the gildings, the bronzes, the magnificent crystal chandeliers, lamps, reflectors, and candelabra, which will glitter in the spacious stores, compared with which the splendor of the present day will appear trifling and insignificant.

There is none, not even the poor manufacturer of resin in the midst of his pine forest, nor the miserable miner in his dark dwelling, but who would enjoy an increase of salary and of comforts.

Gentlemen, if you will be pleased to reflect, you cannot fail to be convinced that there is perhaps not one Frenchman, from the opulent stockholder of Anzin down to the poorest vender of matches, who is not interested in the success of our petition.

We foresee your objections, gentlemen; but there is not one that you can oppose to us which you will not be obliged to gather from the works of the partisans of free trade. We dare challenge you to pronounce one word against our petition, which is not equally opposed to your own practice and the principle which guides your policy.

Do you tell us, that if we gain by this protection, France will not gain, because the consumer must pay the price of it?

We answer you:

You have no longer any right to cite the interest of the consumer. For whenever this has been found to compete with that of the producer, you have invariably sacrificed the first. You have done this to *encourage labor*, to *increase the demand for labor*. The same reason should now induce you to act in the same manner.

You have yourselves already answered the objection. When you were told, The consumer is interested in the free introduction of coal, iron, corn, wheat, cloths, etc., you answer was, Yes, but the producer is interested in their exclusion. Thus, also if the consumer is interested in the admission of light, we, the producers, pray for its interdiction.

You have also said, the producer and the consumer are one. If the manufacturer gains by protection, he will cause the agriculturist to gain also; if agriculture prospers, it opens a market for manufactured goods. Thus we, if you confer upon us the monopoly of furnishing light during the day, will as a first consequence buy large quantities of tallow, coals, oil, resin, wax, alcohol, silver, iron, bronze, crystal, for the supply of our business; and then we and our numerous contractors having become rich, our consumption will be great, and will become a means of contributing to the comfort and competency of the workers in every branch of national labor.

Will you say that the light of the sun is a gratuitous gift, and that to repulse gratuitous gifts is to repulse riches under pretense of encouraging the means of obtaining them?

Take care—you carry the death blow to your own policy. Remember that hitherto you have always repulsed foreign produce *because* it was an approach to a gratuitous gift, and *the more in proportion* as this approach was more close. You have, in obeying the wishes of other monopolists, acted only from a *half-motive*; to grant our petition there is a much *fuller inducement*. To repulse us, precisely for the reason that our case is a more complete one than any which have preceded it, would be to lay down the following equation: $+\times+=-$; in other words, it would be to accumulate absurdity upon absurdity.

Labor and nature concur in different proportions, according to country and climate, in every article of production. The portion of nature is always gratuitous; that of labor alone regulates the price. If a Lisbon orange can be sold at half the price of a Parisian one, it is because a natural and gratuitous heat does for the one what the other only obtains from an artificial and consequently expensive one.

When, therefore, we purchase a Portuguese orange, we may say that we obtain it half gratuitously and half by the right of labor; in other words, at *half price* compared with those of Paris.

Now it is precisely on account of this *demi-gratuity* (excuse the word) that you argue in favor of exclusion. How, you say, could national labor sustain the competition of foreign labor, when the first has everything to do, and the last is rid of half the trouble, the sun taking the rest of the business upon himself? If then the *demi-gratuity* can determine you to check competition, on what principle can the *entire gratuity* be alleged as a reason for admitting it? You are no logicians if, refusing the demi-gratuity as hurtful to human

labor, you do not *a fortiori*, and with double zeal, reject the full gratuity.

Again, when any article, as coal, iron, cheese, or cloth, comes to us from foreign countries with less labor than if we produced it ourselves, the difference in price is a *gratuitous gift* conferred upon us; and the gift is more or less considerable, according as the difference is greater or less. It is the quarter, the half, or the three quarters of the value of the produce, in proportion as the foreign merchant requires the three quarters, the half, or the quarter of the price. It is as complete as possible when the producer offers, as the sun does with light, the whole in free gift. The question is, and we put it formally, whether you wish for France the benefit of gratuitous consumption, or the supposed advantages of laborious production. Choose, but be consistent. And does it not argue the greatest inconsistency to check as you do the importation of coal, iron, cheese, and goods of foreign manufacture, merely because and even in proportion as their price approaches *zero*, while at the same time you freely admit, and without limitation, the light of the sun, whose price is during the whole day at *zero*?

THE AMERICAN SUGAR DUTY.¹

FRANK W. TAUSSIG²

In this classic selection, Professor Taussig shows how, for thirty years, the American consumer paid—in the form of higher prices—the duty on sugar imports into the United States and how this duty, in turn, constituted an indirect subsidy to Hawaiian sugar planters.

The first important modification of the comparatively simple situation which continued so long as Louisiana alone was favored against the importing countries came from the reciprocity treaty with Hawaii in 1876. . . . The treaty of 1876 provided for the reciprocal free admission into the United States and the Hawaiian islands of

¹ This selection is reprinted by permission of the publishers from Frank W. Taussig, *Some Aspects of the Tariff Question*, Cambridge, Mass.: Harvard University Press, 1934, pages 58-69.

² Frank William Taussig (1859-1940) was sometime Henry Lee Professor of Economics in Harvard University.

certain commodities, among which sugar was the only considerable article of commerce. The free admission of sugar into the United States proved to be of signal importance. Not only did it transform the internal conditions of the islands; it altered their relations with the rest of the world, and eventually led to their incorporation into the United States. . . .

Before the treaty the imports of sugar had never risen to 20 million pounds. . . . By 1908 the quantity of sugar from the islands was more than 1000 million pounds; and it remained above that figure thereafter. From an insignificant item, it became an important one; in recent years (1908-13) about one-seventh of the total supply has come from this source.

Who got the benefit of this remission of duty? The United States Treasury lost very considerable amounts; so much sugar came in free that otherwise would have been taxed. The consumers in the United States did not get the benefit. The price of sugar did not fall; nor could it be expected to fall. By far the larger portion of the sugar consumed continued to be imported from non-favored regions and remained subject to duty. The Hawaiian planters did not sell their sugar at a price below that current in the United States—a price necessarily higher by the full amount of the duty of two cents a pound. Clearly it was the planters whom one would expect to be the beneficiaries from the remission. And so it proved. The Hawaiian sugar naturally found its way to the Pacific coast, and there was sold at the full American duty-paid price. It soon supplied the whole of California and the other coast states, and, as the imports from the islands grew, made its way eastward toward the Missouri river. . . . But in all this the purchasers of the Hawaiian sugar found no advantage. They paid at least as much for their sugar as the people of New York or Massachusetts, who consumed dutiable sugar. The effect of the reciprocity treaty was to include the Hawaiian planters within the pale of the protective system. They were put in the same position as the planters of Louisiana. Or, to state the outcome in other terms, the United States gave a bounty of two cents a pound to the sugar growers of Hawaii.

This is the normal effect of a remission of tax on part of the supply. So long as some fraction of the supply continues to be steadily taxed—so long as dutiable imports persist—the whole is raised in price by the full amount of the tax or duty. The producer, domestic or foreign as the case may be, gets the benefit of the

remission, not the consumer. The effect is the same in kind, only less in degree, if there is a partial remission—if part of the supply is subjected, say, to only half tax or half duty. If a portion of the supply continues to pay the full tax regularly, the half which is remitted follows the same course as would the whole: it goes into the pockets of the producers. . . .

The enviable situation of the planters—increasing output of sugar, high dividends on plantation shares, and high prices of sugar land—received a rude shock in 1890. In that year the McKinley tariff act admitted sugar into the United States free of duty. Consistently with the protective principle, the Louisiana sugar growers were placated by a direct bounty of two cents a pound. But the Hawaiian planters, not yet within the American pale, received no bounty. They had now to accept for their sugar the price of the open market, like the planters of Cuba and Java and Brazil. The price of sugar went down sharply in the islands; it is said to have fallen in a single day after the passage of the tariff act from \$100 to \$60 a ton. Hence great depression and much soreness of heart. The hard times that ensued meant, to be sure, not that all profits had disappeared, but in the main that the extravagances of the past had to be given up. . . . The hard times of 1891–94 proved a blessing in disguise; they led to improvements which were extraordinarily profitable under the favorable conditions which soon were restored. . . .

Very soon after, in 1894, the United States again imposed, in the Wilson Tariff Act, a duty on sugar; not quite so high a duty as that before 1890, but high enough—Hawaiian sugar being throughout admitted free—to restore a handsome bounty for the island planters. Good times returned in the islands, and were rendered more secure by their final annexation in 1898. . . . The favored position of Hawaiian sugar rested thereafter not on the basis of a revocable treaty (the treaty had become, after 1894, terminable at twelve months' notice), but on the solid foundation of a complete incorporation in the American dominions. Sugar growing, which had barely held its own from 1890 to 1894, now resumed its upward march. New plantations were opened, old ones enlarged their output, more and more sugar was poured into the United States, and the islands again boomed.

The increase of the Hawaiian sugar crop during the later years took place in a way that serves to illustrate still other economic principles. The tendency to diminishing returns in agriculture showed

itself as the sugar growing resources of the island were pushed further. The best plantation lands had now been in use for many years. As more sugar was got from the soil it became necessary—even for the maintenance of output at the existing rate—to resort to high cultivation. The Hawaiian plantations hence became large importers and users of fertilizers. Therein they were in contrast with Cuba, where sugar land was abundant, and where, as one patch showed signs of exhaustion, the planter simply moved on to another virgin plot. Not only was there this pressure on the good sites in Hawaii: there was the natural tendency to descend in the scale of cultivation, and to use poorer and poorer sites. Sugar cane depends on abundant precipitation. This is supplied on the windward slopes of the islands by the moisture laden winds from the Pacific. But on the leeward slopes, and on inland areas shut off from the ocean by mountain barriers, the rainfall is insufficient. Here great irrigation works were set up, largely by pumping from artesian wells, and sometimes with an admirable technical equipment. In other words, under the bait of the artificially high price of sugar, capital and labor were turned to the utilization of natural resources not in themselves of the best. It is part of the same pressure on the land that sugar cultivation in Hawaii was intensive; the yield per acre is said to have been higher than in any other cane growing country; fertilizers, as has just been noted, were imported in large quantity. As is often the case in descriptions and discussions of intensive cultivation, these refined methods and high acreage yields were spoken of as meritorious, proving that the industry was doing well. In fact they proved that the land was being forced, that the tendency to diminishing returns had set in, and that strenuous exertions were being made to overcome the difficulties.

Hence there must be some qualification to the statement or implication in the preceding paragraphs, that the bounty or protection on Hawaiian sugar enured to the special profit of the sugar planters. It did, so far as they produced the sugar on the more favorable sites or under the more favorable conditions. So far as they had to turn to poorer sources of supply, or pushed their plantations to extra yield by high cultivation, they were led to make that disadvantageous application of labor and capital which is the more ordinary consequence of a protective duty. The higher price of sugar enabled the planters to carry on some sugar growing which they could not have carried on without the bonus. It is impossible to determine how

large a part of the sugar planting of the islands was in this sense wasteful. The circumstance that during the years of free sugar (1890-94) their output, though it failed to increase, did not shrink (it remained not far from 300 million pounds), would indicate that up to this amount cultivation had not been pushed to the point of slackening returns. On the other hand, the output, after a steady growth from 1894 to 1908, remained after the latter year virtually stationary (at about 1,000 million pounds); apparently showing that with this amount the margin of profitableness, even though it may not have been quite reached, was being approached.

One further illustration of general economic principles may be noted. The bonus has caused in the islands a rearrangement of industry which has conformed to the principle of comparative advantage. It made sugar production a peculiarly advantageous industry—advantageous, that is, from the profit-making point of view. Sundry commodities were imported into the islands for which they seem to be well adapted and which had formerly been made within their own limits. Though possessed of a temperate climate, and apparently capable of producing at moderate cost wheat, Indian corn, meat, they imported these staples. Sugar had been made the more profitable industry, and to this all the energies of the inhabitants were turned. Possibly the same result would have ensued in any case; sugar may have a comparative advantage even without a bonus; but the devotion of practically all the land and labor and capital of the islands to this one industry was settled once for all by the special advantage which was given it by favored treatment on the part of the United States. . . .

It is difficult to find in the whole Hawaiian episode anything but one long course of error. The American consumer paid for thirty years (barring the brief respite while the McKinley Tariff was in force) a tidy sum annually to the Hawaiian planters. In the later years of the period this tribute amounted to twelve or fifteen millions of dollars a year. For this there has been nothing of any real value to show—unless it be a stepping-stone to the Philippines, another dependency hardly less unprofitable.

CONGRESS AND OUR TARIFF LAWS¹FINLEY PETER DUNNE²

In his inimitable way Mr. Dooley here attacks the tariff as a burden on the poor and explains how high tariffs in the United States are the result of "logrolling" and "pork-barrel" legislation.

"Well, sir, 'tis a gr-r-rand wurruk thim Sinitors an' Congressmen are doin' in Wash'n'ton. Me heart bleeds f'r th' poor fellows, steamin' away undher th' majestic tin dome iv th' capitol thryin' to rejooce th' tariff to a weight where it can stand on th' same platform with me frind big Bill without endangerin' his life. Th' likes iv ye wud want to see th' tariff rejooiced with a jack plane or an ice pick. But th' tariff has been a good frind to some iv thim boys an' it's a frind iv frinds iv some iv th' others an' they don't intend to be rough with it. A little gentle massage to rejooce th' most prom'nent prochooberances is all that is nicissary. Whiniver they rub too hard an' th' tariff begins to groan, Sinitor Aldhrich says: 'Go a little asier there, boys. He's very tender in some iv thim schedules. P'raps we'd better stop f'r th' day an' give him a little nourishment to build him up,' he says. An' th' last I heerd about it, th' tariff was far fr'm bein' th' wan an' emacyated crather ye'd like to see comin' out iv th' Sinit chamber. It won't have to be helped onto ye'er back an' ye won't notice anny reduction in its weight. No, sir, I shudden't be surprised if it was heartier thin iver.

"Me congressman sint me a copy iv th' tariff bill th' other day. He's a fine fellow, that congressman iv mine. He looks afther me inthrests well. He knows what a gr-reat reader I am. I don't care what I read. So he sint me a copy iv th' tariff bill an' I've been studyin' it f'r a week. 'Tis a good piece iv summer lithrachoor. 'Tis full iv action an romance. I haven't read annythink to akel it since I used to get th' Deadwood Dick series.

¹ This selection is reprinted by kind permission of the publishers from Finley Peter Dunne, *Mr. Dooley Says*, New York: Charles Scribner's Sons, 1910, pages 144-157.

² Finley Peter Dunne (1867-1936), author, journalist, and editor, was regarded by some as the Will Rogers of his day.

"I'm in favor iv havin' it read on th' Foorth iv July instead iv th' declaration iv indypindance. It gives ye some idee iv th' kind iv glorious governmint we're livin' undher, to see our fair Columbia puttin' her brave young arms out an' definidin' th' products iv our soil fr'm steel rails to porous plasters, hooks an' eyes, artyficial horse hair an' bone casings, which comes undher th' head iv clothin' an' I suppose is a polite name f'r pantaloons.

"Iv coorse, low people like ye, Hinmissy, will kick because it's goin' to case ye more to indulge ye'er taste in enervating luxuries. D'ye know Sinitor Aldrich? Ye don't? I'm surprised to hear it. He knows ye. Why, he all but mentions ye'er name in two or three places. He does so. 'Tis as if he said: 'This here vulgar plutycrat, Hinmissy, is turnin' th' heads iv our young men with his garish display. Befure this, counthries have perished because iv th' ostintation iv th' arrystocracy. We must presarve th' ideels iv American simplicity. We'll show this vulgar upstart that he can't humiliate his fellow citizens be goin' around dhressed up like an Asyatic fav'rite iv th' Impror Neero, be Hivens. How will we get at him?' says he. 'We'll put a tax iv sixty per cent. on ready made clothin' costin' less thin ten dollars a suit. That'll teach him to squander money wrung fr'm Jawn D. Rockyfellar in th' Roo dilly Pay. We'll go further thin that. We'll put a tax iv forty per cent. on knitted undherwear costin' less thin a dollar twinty-five a dozen. We'll make a specyal assault on woolen socks an' cowhide shoes. We'll make an example iv this here pampered babe iv fortune,' says he.

"An' there it is. Ye haven't got a thing on ye'er back excipt ye'er skin—an' that may be there; I haven't got as far as th' hide schedule yet—that ain't mentioned in this here boolwark iv our liberties. It's ye'er own fault. If ye will persist in wearin' those gee-gaws ye'll have to pay f'r thim. If ye will go on decoratin' ye'er house with shingles an' paint an' puttin' paper on th' walls an' adornin' th' inside iv it with ye'er barbaric taste f'r eight day clocks, cane bottom chairs an' karosene lamps, ye've got to settle, that's all. Ye've flaunted ye'er wealth too long in th' face iv a sturdy people.

"Ye'd think th' way such as ye talk that ivrything is taxed. It ain't so. 'Tis an insult to th' pathritism iv Congress to say so. Th' Republican party, with a good deal iv assistance fr'm th' pathriotic Dimmycrats, has been thrue to its promises. Look at th' free list, if ye don't believe it. Practically ivrything nicissary to existence comes in free. What, f'r example, says ye? I'll look. Here it is.

Curling stones. There, I told ye. Curling stones are free. Ye'll be able to buy all ye'll need this summer f'r practically nawthin'. No more will ladies comin' into this counthry have to conceal curling stones in their stockin's to avoid th' iniquitous customs.

"What else? Well, teeth. Here it is in th' bill: 'Teeth free iv jooty.' Undher th' Dingley bill they were heavily taxed. Onless ye cud prove that they had cost ye less thin a hundhred dollars, or that ye had worn thim f'r two years in Europe, or that ye were bringin' thim in f'r scientific purposes or to give a museem, there was an enormous jooty on teeth. Th' Governmint used to sind profissyonal humorists down to th' docks to catch th' teeth smugglers. But fr'm now on ye can flaunt ye'er teeth in th' face iv anny inspictor. Ye don't have to declare thim. Ye don't have to put thim in th' bottom iv ye'er thrunk. Ye don't have to have thim chalked or labelled before ye get off th' dock. Ye don't have to hand a five to th' inspictor an' whisper: 'I've got a few bicuspid's that I picked up while abroad. Be a good fellow an' let me through.' No, sir, teeth are free.

"What other nicissities, says ye? Well, there's sea moss. That's a good thing. Ivry poor man will apprecyate havin' sea moss to stir in his tea. Newspapers, nuts, an' nux vomica are-re free. Ye can take th' *London Times* now. But that ain't all by anny means. They've removed th' jooty on Pulu. I didn't think they'd go that far, but in spite iv th' protests iv th' Pulu foundhries iv Sheboygan they ruthlessly sthruke it fr'm th' list iv jootyable articles. Ye know what Pulu is, iv coorse, an' I'm sure ye'll be glad to know that this refreshin' bev'rage or soap is on th' free list. Sinitor Root in behalf iv th' pulu growers iv New York objected, but Sinitor Aldrich was firm. 'No, sir,' he says, 'we must not tax annything that enters into th' daily life iv th' poor,' he says. 'While not a dhrinkin' man mesilf, I am no bigot, an' I wud not deny anny artisan his scuttle iv pulu,' he says. So pulu was put on th' free list, an iv coorse Zapper an' Alazarin had to go on, too, as it is on'y be addin' thim to pulu that ye can make axle-grease.

"There was a gr-reat sthuggle over cannary bur-rd seed. Rip-risintatives iv th' Chicago packers insisted that in time canary bur-rds cud be taught to eat pork chops. Manny sinitors thought that th' next step wud be to take th' duty off cuttle fish bone, an' thus sthrike a blow at th' very heart iv our protictive system. But Sinitor Tillman, who is a gr-reat frind iv th' canary bur-rd an' is niver seen

without wan perched on his wrist, which he has taught to swear, put up a gallant fight f'r his protegees, an' thousands iv canary bur-rds sang with a lighter heart that night. Canary bur-rd seed will be very cheap this year, an' anny American wur-rukin' man needn't go to bed hungry. There ought to be some way iv teachin' their wives how to cook it. It wud make a nourishin' dish whin ye have whetted ye'er face on a piece iv cuttle fish bone. I'm sure th' raison American wurrukin' men don't hop around an' sing over their wurruk is because they are improperly fed. . . .

"Well, sir, there are a few iv th' things that are on th' free list. But there are others, minds ye. Here's some iv thim: Apatite, hog bristles, wurruks iv art more thin twinty years old, kelp, marshmallows, life boats, silk worm eggs, stilts, skeletons, turtles, an' leeches. Th' new tariff bill puts these familyar commodityties within th' reach iv all. But there's a bigger surprise waitin' for ye. What d'ye think ends th' free list? I'll give ye twinty chances an' ye'll niver guess. Blankets? No. Sugar? Wrong. Flannel shirts? Thry to be a little practical, Hinnessy. Sinitor Aldrich ain't no majician. Well, I might as well tell ye if ye're sure ye'er heart is sthrong an' ye can stand a joyful surprise. Ar-re ye ready? Well, thin, joss sticks an' opyum f'r smokin' ar-re on th' free list! If they ain't I'm a Chinyman an' if they are I'll be wan pretty soon.

"How often have I envied Hop Lung whin I see him burnin' his priceless joss sticks. How often have I seen him lyin' on top iv me week's washin' pullin' away at th' savry rooster brand an' dhreamin' he was th' Impror iv Chiny, while I've had to contint meself with a stogy that give me a headache! But that day is passed. Me good an' great frind fr'm Rhode Island has made me th' akel iv anny Chink that iver rolled a pill. Th' tariff bill wudden't be complete without that there item. But it ought to read: 'Opyum f'r smokin' while readin' th' tariff bill.' Ye can take this sterlin' piece iv lithrachoor to a bunk with ye an' light a ball iv hop. Befure ye smoke up p'raps ye can't see where the tariff has been rejoiced. But afther ye've had a long dhraw it all becomes clear to ye. Ye'er worries about th' childhren's shoes disappear an' ye see ye'er silf floatin' over a purple sea iv alazarin, in ye'er private yacht, lulled be th' *London Times*, surrounded be wurruks iv art more thin twinty years old, atin' marshmallows an' canary bur-rd seed, while th' turtles an' leeches frisk on th' binnacle.

"Well, sir, if nobody else has read th' debates on th' tariff bill,

I have. An' I'll tell ye, Hinmissy, that no such orathray has been heerd in Congress since Dan'l Webster's day, if thin. Th' walls iv Congress hall has resounded with th' loftiest sintimints. Hinnery Cabin Lodge in accents that wud melt th' heart iv th' coldest mannyfacthrer iv button shoes has pleaded f'r freedom f'r th' skins iv cows. I'm sorry to say that this appeal fr'm th' cradle iv our liberties wasn't succissful. Th' hide iv th' pauperized kine iv Europe will have to cough up at the custom house befure they can be convarted into brogans. This pathriotic result was secured be th' gallant Bailey iv Texas. A fine lib'ral minded fellow, that lad Bailey. He's an ardint free thrader, mind ye. He's almost a slave to th' historic principles iv th' Dimmy-cratic party. Ye bet he is. But he's no blamed bigot. He can have principles an' he can lave thim alone. An' I want to tell ye, me frind, that whin it comes to disthributin' th' honors f'r this reform iv th' tariff, don't ye fail to throw a few flowers, or, if bricks are handier, bricks at th' ripsisintatives iv our small but gallant party. It was a fine thing to see thim standin' be th' battle cry iv our grand old organyzation.

"Says th' sinitor fr'm Louisyanny: 'Louisyanny, th' proudest jool in th' dyadim iv our fair land, remains throe to th' honored teachin's iv our leaders. Th' protictive tariff is an abomynation. It is crushin' out th' lives iv our people. An' wan iv th' worst parts iv this divvlsh injine iv tyranny is th' tariff on lathes. Fellow sinitors, as long,' he says, 'as I can stand, as long as nature will sustain me in me protest, while one dhrop iv pathriotic blood surges through me heart, I will raise me voice again a tariff on lathes, onless,' he says, 'this dhread implymint iv oppresyon is akelly used,' he says, 'to protict th' bland an' beautiful molasses iv th' State iv me birth,' he says.

"I am heartily in sympathy with th' sinitor fr'm Louisyanny,' says th' sinitor fr'm Virginya. 'I loathe th' tariff. Fr'm me arliest days I was brought up to look on it with pizenous hathred. At manny a con-vintion ye cud hear me whoopin' again it. But if there is such a lot iv this monsthrous iniquity passin' around, don't Virginya get none? How about th' mother iv prisidents? Ain't she goin' to have a grab at annything? Gintlemen, I do not ask, I demand rights f'r me commonwealth. I will talk here until July fourth, nineteen hundred an' eighty-two, agin th' proposed hellish tax on feather beds onless somethin' is don f'r th' tamarack bark iv old Virginya.'

"A sinitor: 'What's it used f'r?'

"Th' sinitor fr'm Virginya: 'I do not quite know. It is ayether a

cure f'r th' hives or enthers largely into th' mannyfacture iv carpet slippers. But there's a frind iv mine, a lile Virginian, who makes it an' he needs th' money.'

"The argymints iv th' sinitor fr'm Virginya are onanswerable,' says Sinitor Aldhrich. 'Wud it be agreeable to me Dimmycratic collague to put both feather beds an' his what's-ye-call-it in th' same item?'

"In such circumstances,' says the sinitor fr'm Virginya, 'I wud be foorced to waive me almost insane prejudice again th' hellish doc-thrines iv th' distinguished sinitor fr'm Rhode Island,' says he.

"An' so it goes, Hinnissy. Niver a sordid wurrud, mind ye, but ivry-thing done on th' fine old principle iv give an' take."

"Well," said Mr. Hennessy, "what diff'rence does it make? Th' foreigner pays th' tax, annyhow."

"He does," said Mr. Dooley, "if he ain't turned back at Castle Garden."

CHAPTER 28

The Case for Protection

SOME ARGUMENTS FOR PROTECTION¹

JOHN STUART MILL²

John Stuart Mill, although a free trader, here recognizes two valid exceptions to the general free trade position: tariffs to protect industries vital for national defense and tariffs to shelter the growth of "infant" industries.

Defeated as a general theory, the Protectionist doctrine finds support in some particular cases, from considerations which, when really in point, involve greater interests than mere saving of labour; the interests of national subsistence and of national defence. The discussions on the Corn Laws have familiarized everybody with the plea, that we ought to be independent of foreigners for the food of the people; and the Navigation Laws were grounded, in theory and profession, on the necessity of keeping up a "nursery of seamen" for the navy. On this last subject I at once admit, that the object is worth the sacrifice; and that a country exposed to invasion by sea, if it cannot otherwise have sufficient ships and sailors of its own to secure the means of manning on an emergency an adequate fleet, is quite right in obtaining those means, even at an economical sacrifice in point of cheapness of transport. When the English Navigation Laws were enacted, the Dutch, from their maritime skill and their low rate of profit at home, were able to carry for other nations, England included, at cheaper rates than those nations could carry for themselves: which placed all other countries at a great comparative disadvantage in obtaining experienced seamen for their ships of war. The Navigation Laws, by which this deficiency was remedied, and at the same time a blow struck against the maritime power of a nation with which England

¹ This selection is reprinted from J. S. Mill, *Principles of Political Economy*, London: Longmans, Green and Co., 1871, Book V, Chapter 10, paragraph 1.

² John Stuart Mill (1806-1873) was an outstanding English Classical economist, philosopher, and student of jurisprudence.

was then frequently engaged in hostilities, were probably, though economically disadvantageous, politically expedient. . . .

In countries in which the Protection theory is [1848] declining, but not yet given up, such as the United States, a doctrine has come into notice which is a sort of compromise between free trade and restriction, namely, that protection for protection's sake is improper, but that there is nothing objectionable in having as much protection as may incidentally result from a tariff framed solely for revenue. Even in England, regret is sometimes expressed that a "moderate fixed duty" was not preserved on corn, on account of the revenue it would yield. Independently, however, of the general impolicy of taxes on the necessities of life, this doctrine overlooks the fact, that revenue is received only on the quantity imported, but that the tax is paid on the entire quantity consumed. To make the public pay much that the treasury may receive a little, is not an eligible mode of obtaining a revenue. In the case of manufactured articles the doctrine involves a palpable inconsistency. The object of the duty, as a means of revenue, is inconsistent with its affording, even incidentally, any protection. It can only operate as protection in so far as it prevents importation; and to whatever degree it prevents importation it affords no revenue.

The only case in which, on mere principles of political economy, protecting duties can be defensible, is when they are imposed temporarily (especially in a young and rising nation) in hopes of naturalizing a foreign industry, in itself perfectly suitable to the circumstances of the country. The superiority of one country over another in a branch of production often arises only from having begun it sooner. There may be no inherent advantage on one part, or disadvantage on the other, but only a present superiority of acquired skill and experience. A country which has this skill and experience yet to acquire, may in other respects be better adapted to the production than those which were earlier in the field: and besides, it is a just remark of Mr. Rae, that nothing has a greater tendency to promote improvements in any branch of production than its trial under a new set of conditions. But it cannot be expected that individuals should, at their own risk, or rather to their certain loss, introduce a new manufacture, and bear the burthen of carrying it on until the producers have been educated up to the level of those with whom the processes are traditional. A protecting duty, continued for a reasonable time, might sometimes be the least inconvenient mode in which the nation can tax itself for the

support of such an experiment. But it is essential that the protection should be confined to cases in which there is good ground of assurance that the industry which it fosters will after a time be able to dispense with it; nor should the domestic producers ever be allowed to expect that it will be continued to them beyond the time necessary for a fair trial of what they are capable of accomplishing. . . .

I have therefore conceded that in a new country a temporary protecting duty may sometimes be economically defensible; on condition, however, that it be strictly limited in point of time, and provision be made that during the latter part of its existence it be on a gradually decreasing scale. Such temporary protection is of the same nature as a patent, and should be governed by similar conditions.

IN DEFENSE OF THE NATIONAL ECONOMY¹

FRIEDRICH LIST²

Friedrich List here admits that free trade would be a desirable policy if we could assume the world to be an economic and political unit. Since such an assumption is contrary to fact, however—i.e., since the world is divided into separate nations—List urges every nation except purely agricultural or advanced industrial nations to shield their infant industries with protective tariffs.

The system of the school suffers from three main defects: firstly, from boundless *cosmopolitanism*, which neither recognizes the principle of nationality, nor takes into consideration the satisfaction of its interests; secondly, from a dead *materialism*, which everywhere regards chiefly the mere exchangeable value of things without taking into consideration the mental and political, the present and the future interests, and the productive powers of the nation; thirdly, from a

¹ This selection is reprinted from Friedrich List, *The National System of Political Economy*, 1841 (English translation by S. S. Lloyd, 1885), Chapters 15, 27, 10, and 15.

² Friedrich List (1789–1846) actively campaigned for the adoption of protective policies by Germany and the United States. He was an outstanding advocate of the German Zollverein (customs union) and a vigorous supporter of the Pennsylvania "Association for the Protection of Manufacturing Industry." A critic of Adam Smith and J. B. Say, he condemned the cosmopolitanism of the Classical school of economists.

disorganising particularism and individualism, which, ignoring the nature and character of social labour and the operation of the union of powers in their higher consequences, considers private industry only as it would develop itself under a state of free interchange with society (i.e. with the whole human race) were that race not divided into separate national societies.

Between each individual and entire humanity, however, stands THE NATION, with its special language and literature, with its peculiar origin and history, with its special manners and customs, laws and institutions, with the claims of all these for existence, independence, perfection, and continuance for the future, and with its separate territory; a society which, united by a thousand ties of mind and of interests, combines itself into one independent whole, which recognises the law of right for and within itself, and in its united character is still opposed to other societies of a similar kind in their national liberty, and consequently can only under the existing conditions of the world maintain self-existence and independence by its own power and resources. As the individual chiefly obtains by means of the nation and in the nation mental culture, power of production, security, and prosperity, so is the civilisation of the human race only conceivable and possible by means of the civilisation and development of the individual nations.

Meanwhile, however, an infinite difference exists in the condition and circumstances of the various nations: we observe among them giants and dwarfs, well-formed bodies and cripples, civilised, half-civilised, and barbarous nations; but in all of them, as in the individual human being, exists the impulse of self-preservation, the striving for improvement which is implanted by nature. It is the task of politics to civilise the barbarous nationalities, to make the small and weak ones great and strong, but, above all, to secure to them existence and continuance. It is the task of national economy to accomplish *the economical development of the nation*, and to prepare it for admission into the universal society of the future.

A nation in its normal state possesses one common language and literature, a territory endowed with manifold natural resources, extensive, and with convenient frontiers and a numerous population. Agriculture, manufactures, commerce, and navigation must be all developed in it proportionately; arts and sciences, educational establishments, and universal cultivation must stand in it on an equal footing with material production. Its constitution, laws, and institutions

must afford to those who belong to it a high degree of security and liberty, and must promote religion, morality, and prosperity; in a word, must have the well-being of its citizens as their object. It must possess sufficient power on land and at sea to defend its independence and to protect its foreign commerce. It will possess the power of beneficially affecting the civilisation of less advanced nations, and by means of its own surplus population and of their mental and material capital to found colonies and beget new nations. . . .

As respects their economy, nations have to pass through the following stages of development: original barbarism, pastoral condition, agricultural condition, agricultural-manufacturing condition, and agricultural-manufacturing-commercial condition.

The industrial history of nations, and of none more clearly than that of England, proves that the transition from the savage state to the pastoral one, from the pastoral to the agricultural, and from agriculture to the first beginnings in manufacture and navigation, is effected most speedily and advantageously by means of free commerce with further advanced towns and countries, but that a perfectly developed manufacturing industry, an important mercantile marine, and foreign trade on a really large scale, can only be attained by means of the interposition of the power of the State.

The less any nation's agriculture has been perfected, and the more its foreign trade is in want of opportunities of exchanging the excess of native agricultural products and raw materials for foreign manufactured goods, the deeper that the nation is still sunk in barbarism and fitted only for an absolute monarchical form of government and legislation, the more will free trade (i.e. the exportation of agricultural products and the importation of manufactured goods) promote its prosperity and civilisation.

On the other hand, the more that the agriculture of a nation, its industries, and its social, political, and municipal conditions, are thoroughly developed, the less advantage will it be able to derive for the improvement of its social conditions, from the exchange of native agricultural products and raw materials for foreign manufactured goods, and the greater disadvantages will it experience from the successful competition of a foreign manufacturing power superior to its own.

Solely in nations of the latter kind, namely, those which possess all the necessary mental and material conditions and means for establishing a manufacturing power of their own, and of thereby attaining

the highest degree of civilisation, and development of material prosperity and political power, but which are retarded in their progress by the competition of a foreign manufacturing Power which is already farther advanced than their own—only in such nations are commercial restrictions justifiable for the purpose of establishing and protecting their own manufacturing power; and even in them it is justifiable only until that manufacturing power is strong enough no longer to have any reason to fear foreign competition, and thenceforth only so far as may be necessary for protecting the inland manufacturing power in its very roots.

The system of protection would not merely be contrary to the principles of cosmopolitical economy, but also to the rightly understood advantage of the nation itself, were it to exclude foreign competition at once and altogether, and thus isolate from other nations the nation which is thus protected. If the manufacturing Power to be protected be still in the first period of its development, the protective duties must be very moderate, they must only rise gradually with the increase of the mental and material capital, of the technical abilities and spirit of enterprise of the nation. Neither is it at all necessary that all branches of industry should be protected in the same degree. Only the most important branches require special protection, for the working of which much outlay of capital in building and management, much machinery, and therefore much technical knowledge, skill, and experience, and many workmen are required, and whose products belong to the category of the first necessities of life, and consequently are of the greatest importance as regards their total value as well as regards national independence (as, for example, cotton, woollen and linen manufactories, &c.). If these main branches are suitably protected and developed, all other less important branches of manufacture will rise up around them under a less degree of protection. It will be to the advantage of nations in which wages are high, and whose population is not yet great in proportion to the extent of their territory, e.g. in the United States of North America, to give less protection to manufactures in which machinery does not play an important part, than to those in which machinery does the greater part of the work, providing that those nations which supply them with similar goods allow in return free importation to their agricultural products.

The popular school betrays an utter misconception of the nature

of national economical conditions if it believes that such nations can promote and further their civilisation, their prosperity, and especially their social progress, equally well by the exchange of agricultural products for manufactured goods, as by establishing a manufacturing power of their own. A mere agricultural nation can never develop to any considerable extent its home and foreign commerce, its inland means of transport, and its foreign navigation, increase its population in due proportion to their well-being, or make notable progress in its moral, intellectual, social, and political development: it will never acquire important political power, or be placed in a position to influence the cultivation and progress of less advanced nations and to form colonies of its own. A mere agricultural State is an infinitely less perfect institution than an agricultural-manufacturing State. The former is always more or less economically and politically dependent on those foreign nations which take from it agricultural products in exchange for manufactured goods. It cannot determine for itself how much it will produce; it must wait and see how much others will buy from it. These latter, on the contrary (the agricultural-manufacturing States), produce for themselves large quantities of raw materials and provisions, and supply merely the deficiency by importation from the purely agricultural nations. The purely agricultural nations are thus in the first place dependent for their power of effecting sales on the chances of a more or less plentiful harvest in the agricultural-manufacturing nations; in the next place they have to compete in these sales with other purely agricultural nations, whereby their power of sale, in itself very uncertain, thus becomes still more uncertain. Lastly, they are exposed to the danger of being totally ruined in their trading with foreign manufacturing nations by wars, or new foreign tariff regulations whereby they suffer the double disadvantage of finding no buyers for their surplus agricultural products, and of failing to obtain supplies of the manufactured goods which they require. An agricultural nation is, as we have already stated, an individual with *one* arm, who makes use of a foreign arm, but who cannot make sure of the use of it in all cases; an agricultural-manufacturing nation is an individual who has *two* arms of *his own* always at his disposal.

It is a fundamental error of the school when it represents the system of protection as a mere device of speculative politicians which is contrary to nature. History is there to prove that protective regu-

lations originated either in the natural efforts of nations to attain to prosperity, independence, and power, or in consequence of wars and of the hostile commercial legislation of predominating manufacturing nations.

The idea of independence and power originates in the very idea of 'the nation.' The school never takes this into consideration, because it does not make the economy of the separate nation, but the economy of society generally, i.e. of the whole human race, the object of its investigations. If we imagine, for instance, that all nations were united by means of a universal confederation, their individual independence and power would cease to be an object of regard. The security for the independence of every nation would in such a case rest on the legal provisions of the universal society, just as e.g. the security of the independence of the states of Rhode Island and Delaware lies in the union of all the free states constituting the American Union. Since the first foundation of that Union it has never yet occurred to any of these smaller states to care for the enlargement of its own political power, or to consider its independence less secured than is that of the largest states of the Union.

In proportion, however, as the principle of a universal confederation of nations is reasonable, in just the same degree would a given nation act contrary to reason if, in anticipation of the great advantages to be expected from such a union, and from a state of universal and perpetual peace, it were to regulate the principles of its national policy as though this universal confederation of nations existed already. We ask, would not every sane person consider a government to be insane which, in consideration of the benefits and the reasonableness of a state of universal and perpetual peace, proposed to disband its armies, destroy its fleet, and demolish its fortresses? But such a government would be doing nothing different in principle from what the popular school requires from governments when, because of the advantages which would be derivable from general free trade, it urges that they should abandon the advantages derivable from protection.

War has a ruinous effect on the reciprocal commercial relations between nation and nation. The agriculturist living in one country is by it forcibly separated from the manufacturer living in another country. While, however, the manufacturer (especially if he belongs to a nation powerful at sea, and carrying on extensive commerce) readily finds compensation from the agriculturists of his own coun-

try, or from those of other accessible agricultural countries, the inhabitant of the purely agricultural country suffers doubly through this interruption of intercourse.

The market for his agricultural products will fail him entirely, and he will consequently lose the means of paying for those manufactured goods which have become necessities to him owing to previously existing trade; his power both of production and consumption will be diminished.

If, however, one agricultural nation whose production and consumption are thus diminished by war has already made considerable advances in population, civilisation, and agriculture, manufactures and factories will spring up in it in consequence of the interruption of international commerce by war. War acts on it like a prohibitive tariff system. It thereby becomes acquainted with the great advantages of a manufacturing power of its own, it becomes convinced by practical experience that it has gained more than it has lost by the commercial interruptions which war has occasioned. The conviction gains ground in it, that it is called to pass from the condition of a mere agricultural State to the condition of an agricultural-manufacturing State, and in consequence of this transition, to attain to the highest degree of prosperity, civilisation, and power. But if after such a nation has already made considerable progress in the manufacturing career which was opened to it by war, peace is again established, and should both nations then contemplate the resumption of their previously existing commercial intercourse, they will both find that during the war new interests have been formed, which would be destroyed by re-establishing the former commercial interchange. The former agricultural nation will feel, that in order to resume the sale of its agricultural products to the foreigner, it would have to sacrifice its own manufacturing industry which has in the meanwhile been created; the manufacturing nation will feel that a portion of its home agricultural production, which has been formed during the war, would again be destroyed by free importation. Both, therefore, try to protect these interests by means of imposing duties on imports. . . .

A war which leads to the change of the purely agricultural State into an agricultural-manufacturing State is therefore a blessing to a nation, just as the War of Independence of the United States of North America, in spite of the enormous sacrifices which it required, has become a blessing to all future generations. But a peace which

throws back into a purely agricultural condition a nation which is fitted to develop a manufacturing power of its own, becomes a curse to it, and is incomparably more injurious to it than a war. . . .

Who can guarantee that a new naval war or a new Continental system may not separate the agriculturists of the Continent from the manufacturers of the island kingdom, and compel the Continental nations to recommence their manufacturing career, and to spend their best energies in overcoming its primary difficulties, merely in order at a later period to sacrifice everything again at the conclusion of peace.

In this manner the school would condemn the Continental nations for ever to be rolling the stone of Sisypheus, for ever to erect manufactories in time of war in order to allow them to fall to ruin in time of peace.

To results so absurd as these the school could never have arrived had it not (in spite of the name which it gives to the science which it professes) completely excluded politics from that science, had it not completely ignored the very existence of nationality, and left entirely out of consideration the effects of war on the commercial intercourse between separate nations.

How utterly different is the relation of the agriculturist to the manufacturer if both live in one and the same country, and are consequently really connected with one another by perpetual peace. Under those circumstances, every extension or improvement of an already existing manufactory increases the demand for agricultural products. This demand is no uncertain one; it is not dependent on foreign commercial regulations or foreign commercial fluctuations, on foreign political commotions or wars, on foreign inventions and improvements, or on foreign harvests; the native agriculturist has not to share it with other nations, it is certain to him every year. However the crops of other nations may turn out, whatever misunderstandings may spring up in the political world, he can depend on the sale of his own produce, and on obtaining the manufactured goods which he needs at suitable and regular prices. On the other hand, every improvement of the native agriculture, every new method of culture, acts as a stimulant on the native manufacture, because every augmentation of native agricultural production must result in a proportionate augmentation of native manufacturing production. Thus, by means of this reciprocal action, progress is insured for all time to both these main sources of the nation's strength and support.

Political power not merely secures to the nation the increase of its prosperity by foreign commerce and by colonies abroad, it also secures to it the possession of internal prosperity, and secures to it its own existence, which is far more important to it than mere material wealth. England has obtained political power by means of her navigation laws; and by means of political power she has been placed in a position to extend her manufacturing power over other nations. Poland, however, was struck out of the list of nations because she did not possess a vigorous middle class, which could only have been called into existence by the establishment of an internal manufacturing power.

The school cannot deny that the internal market of a nation is ten times more important to it than its external one, even where the latter is in the most flourishing condition; but it has omitted to draw from this the conclusion, which is very obvious, that it is ten times more important to cultivate and secure the home market, than to seek for wealth abroad, and that only in those nations which have developed their internal industry to a high degree can foreign commerce attain importance.

The school has formed its estimate of the nature and character of the market only from a cosmopolitical, but not from a political point of view. . . .

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The school recognises no distinction in reference to the establishment of manufacturing industry in a State between those nations which are not adapted for such industry and those which, owing to the nature of their territory, to perfectly developed agriculture, to their civilisation, and to their just claims for guarantees for their future prosperity, for their permanence, and for their power, are clearly qualified to establish such an industry for themselves.

The school fails to perceive that under a system of perfectly free competition with more advanced manufacturing nations, a nation which is less advanced than those, although well fitted for manufacturing, can never attain to a perfectly developed manufacturing power of its own, nor to perfect national independence, without protective duties.

It does not take into account the influence of war on the necessity for a protective system; especially it does not perceive that war effects a compulsory prohibitive system, and that the prohibitive sys-

tem of the custom-house is but a necessary continuation of that prohibitive system which war has brought about.

It seeks to adduce the benefits which result from free internal trade as a proof that nations can only attain to the highest degree of prosperity and power by absolute freedom in international trade; whereas history everywhere proves the contrary.

It maintains that protective measures afford a monopoly to inland manufacturers, and thus tend to induce indolence; while, nevertheless, all the time internal competition amply suffices as a stimulus to emulation among manufacturers and traders.

It would have us believe that protective duties on manufactured goods benefit manufacturers at the expense of agriculturists; whereas it can be proved that enormous benefits accrue to home agriculture from the existence of a home manufacturing power, compared to which the sacrifices which the former has to make to the protective system are inconsiderable.

As a main point against protective duties, the popular school adduces the expenses of the custom-house system and the evils caused by contraband trade. These evils cannot be denied; but can they be taken seriously into account in comparison of measures which exercise such enormous influence on the existence, the power, and the prosperity of the nation? Can the evils of standing armies and wars constitute an adequate motive for the nation to neglect means of defense? . . .

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. . . History teaches us how nations which have been endowed by Nature with all resources which are requisite for the attainment of the highest grade of wealth and power, may and must—without on that account forfeiting the end in view—modify their systems according to the measure of their own progress: in the first stage, adopting free trade with more advanced nations as a means of raising themselves from a state of barbarism, and of making advances in agriculture; in the second stage, promoting the growth of manufactures, fisheries, navigation, and foreign trade by means of commercial restrictions; and in the last stage, after reaching the highest degree of wealth and power, by gradually reverting to the principle of free trade and of unrestricted competition in the home as well as in foreign markets, that so their agriculturists, manufacturers, and mer-

chants may be preserved from indolence, and stimulated to retain the supremacy which they have acquired. . . .

The advance which England has made in manufactures, navigation, and commerce, need not discourage any other nation which is fitted for manufacturing production, by the possession of suitable territory, of national power and intelligence, from entering into the lists with England's manufacturing supremacy. A future is approaching for manufactures, commerce, and navigation which will surpass the present as much as the present surpasses the past. Let us only have the courage to believe in a great national future, and in that belief to march onward. But above all things we must have enough national spirit at once to plant and protect the tree, which will yield its first richest fruits only to future generations.

CHAPTER 29

The Problem of Stable Exchange Rates

THE INTERNATIONAL MONETARY FUND¹

ALVIN H. HANSEN²

Professor Hansen here defends the machinery of the International Monetary Fund as an important instrument for the reconstruction of international trade after World War II. He attempts to justify creation of the Fund to function as (1) a short term credit institution, (2) an agency for the orderly adjustment of exchange rates, and (3) a means for international consultation.

The International Monetary Fund would perform three major functions because it provides for (a) short-term credit to countries to help them over temporary difficulties in their balance of payment position, (b) mechanisms of adjustment to improve the long-term balance of payment position of member countries and (c) continuous machinery for international consultation, and for research, surveys and reports dealing with current international problems.

Any one of these three functions of the Fund would justify its existence. Combining all three functions, each reinforces the other. The Fund can therefore play a very important role in achieving international monetary stability and an orderly development of international monetary relations.

I. THE FUND AS A SHORT-TERM CREDIT INSTITUTION

Discussion about the Fund not infrequently proceeds on the erroneous assumption that it is intended to supply virtually all the foreign exchange that any country will use. Nothing could be further from the truth. All countries will have international monetary re-

¹ This selection is reprinted by kind permission of the publishers and author from Alvin H. Hansen, *America's Role in the World Economy*, New York: W. W. Norton and Company, Inc., 1945, pages 54-66.

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serves of gold and foreign-exchange balances entirely outside of the Fund. Some will have large monetary reserves and some small, relative to their needs. Foreign-exchange dealings will take place in the ordinary, private, foreign-exchange channels precisely as would be the case were no Fund in existence at all. In the usual case the resources of the Fund would not be used.

It is of the utmost importance to emphasize the point that the Fund is not intended to provide foreign exchange for its members in the usual case. The resources of the Fund are intended to supplement the ordinary foreign-exchange resources of the members and to constitute a second line of defense in meeting temporary balance of payment difficulties. The Fund guarantees each member a line of credit which it can draw upon when necessary. In this respect it provides insurance against a breakdown of international monetary arrangements.

Let us consider precisely why the Fund can accurately be described as an institution that provides a line of credit for its members. In order to be entitled to a line of credit each member makes an initial contribution to the Fund in gold amounting to 25 per cent of its quota, or 10 per cent of its gold holdings, whichever is smaller. It is estimated that the total amount of gold that will thus be contributed by all the members will amount to about \$1,650 million. Thus the Fund will hold at the outset a certain amount of gold which may be used to purchase foreign exchange in any member country, since gold is universally acceptable all around.

In addition, however, each member, in order to obtain the line of credit referred to, agrees to put up a certain amount of "currency" upon becoming a member of the Fund. This currency may be either in the form of a deposit account entered in its Central Bank to the credit of the Fund or it may simply be a noninterest-bearing obligation of the member government deposited with the Central Bank to the credit of the Fund. The amount so deposited (whether as a deposit account or as a noninterest-bearing obligation) must be equal to the quota assigned the member country in the Fund minus the gold contribution made. In the case of fairly large gold-holding countries the amount so deposited to the credit of the Fund would be 75 per cent of its quota, 25 per cent of the quota being paid in gold. In the case, however, of countries having small gold holdings, only 10 per cent of their gold holdings will be deposited with the Fund, while the remaining part of the quota would be deposited in the

Central Bank as a deposit account or as a noninterest-bearing demand obligation of the government.

An illuminating way of describing the nature of the Fund was suggested in a seminar at Harvard University by Dr. Eugenio Gudín, Chief of the Economic and Financial Council in Brazil. He represented the members of the Fund as seated around an oblong table. Upon the middle of this table is placed a large bowl into which all the countries deposit their gold contributions. In addition, each member country places its own individual bowl on the table. Into its own bowl the country deposits its nongold contribution in the form of a Central Bank deposit or of a noninterest-bearing government obligation. In the technical language of the Bretton Woods draft it is said that the country deposits its "currency." For the sake of brevity we shall use this term. Let it be remembered that whenever the term *currency* is so used it means a deposit account in the Central Bank of the member, or the deposit of a noninterest-bearing government obligation, both entered to the credit of the Fund.

Now let us return to Dr. Gudín's illustration. Brazil, let us say, has contributed 25 per cent of her quota in gold to the central gold bowl. In addition, Brazil has deposited in her own bowl her own *currency* equal to 75 per cent of the quota.

Let us now assume that Brazil finds herself short of foreign exchange and wishes to take advantage of her line of credit with the Fund. Let us assume that she wishes to obtain United States dollar exchange. She goes to the Fund and asks to borrow United States dollars from the Fund. The Fund is able to supply the dollars because the United States has contributed dollar *currency* in its bowl to the credit of the Fund. In order to borrow, however, Brazil is compelled to advance additional collateral over and above the amount already deposited. In other words, to the extent that Brazil wishes to borrow dollars she must put, so to speak, additional Brazilian *currency* into her individual bowl to the credit of the Fund. If Brazil borrows dollars equal in value to one-fourth of her quota, she will have added a further 25 per cent of her quota to the *currency* held in the Brazilian bowl.

What is the purpose of all this? Clearly one purpose is to insure that Brazil has put up an adequate amount of collateral for any foreign exchange that she has borrowed from the Fund. How much is this collateral? What is the ratio of the collateral put up to the line of credit used? In the event that the additional *currency* deposited

amounts to 25 per cent of her quota, the collateral will be five times the amount borrowed. This is true since Brazil will have deposited into the central gold bowl and into her own individual *currency* bowl 125 per cent of her quota, while she has thus far borrowed only up to 25 per cent of her quota. The ratio of security that Brazil has provided for her borrowing is thus 5 to 1. In other words, the Fund holds security back of the loan made to Brazil in the form of gold equal to 100 per cent of the loan made and, in addition, Brazilian *currency* equal to four times the amount of the loan.

Let us assume that Brazil continues to borrow in each succeeding year 25 per cent of her quota until her borrowings have exhausted her full line of credit. The full line of credit that any member country is entitled to, it must be remembered, is equal to the quota assigned to each country plus the gold contributed. A country may not draw in any one year an amount in excess of 25 per cent of the quota. Thus it would take Brazil five years to exhaust her line of credit.

When Brazil has used her full line of credit, how much collateral will the Fund hold as security for the loan extended? The collateral, when the full line of credit is exhausted, is equal to nearly twice the amount of the loan. This is true because by the time Brazil has exhausted her full line of credit she will have been compelled to deposit in her bowl to the credit of the Fund 200 per cent of her quota in the form of her own *currency*, and in addition the 25 per cent of gold placed in the central bowl. Thus the gold and Brazilian *currency* combined will at this point equal 225 per cent of her quota. On the other side, her borrowing amounts to 125 per cent of her quota. The security Brazil has placed to the credit of the Fund to protect the loan therefore is, when she has used her full line of credit, in the ratio of nearly 2 to 1.

Let us briefly go back over the operation in order to make it crystal clear. Brazil, upon becoming a member of the Fund, has already deposited 25 per cent of her quota in gold in the central bowl and 75 per cent in Brazilian *currency* in her own bowl, all of which deposits now become the property of the Fund. After having made these deposits, Brazil is now a full-fledged member and entitled to a line of credit equal to her quota plus the gold contribution. In order to borrow, however, she must deposit *additional* Brazilian *currency* to the credit of the Fund equal to the amount of foreign exchange she wishes to borrow. Thus the additional deposit, over and above

the initial deposit, always equals dollar for dollar the amount she has borrowed from the Fund.

It is further provided that the gold value of the Fund's assets must be maintained. If the currency of a country has depreciated, such country must make good to the Fund any loss that the Fund has sustained in the gold value of its currency held by the Fund.

It will be seen from this illustration that the Fund is conducting a prudent lending business. There is always adequate security back of every loan.

This is not all. The Fund conducts its lending business on the sound credit policy of charging interest rates for the loan. Since it is intended that the Fund shall merely supplement the ordinary foreign-exchange operations, members are expected to borrow only to meet temporary difficulties. They are not expected to exhaust their full line of credit or to continue the loan on a long-term basis.

In order to deter a country from using its line of credit in excess of the amount required to meet short-term emergencies, the rate charged rises the larger the amount that is borrowed. If a country used only one-fourth of its line of credit, the rate is moderate. If it has used its full amount, the charges rise to a substantially higher figure.

Moreover, if a country repays the loan in a short period of time, the rate charged is low. If, however, a country allows the loan to run for several years, the interest rate rises progressively the longer the duration of the loan. Thus the rate rises in two dimensions: (*a*) the larger the amount of the loan and (*b*) the longer the period for which the loan runs. And finally, if the combined effect of the size of the loan and the period of the loan is such as to reach the rate of 4 per cent, the Fund and the members are to consider means by which the loan may be reduced. If, however, the loan is continued and the charges rise to 5 per cent, the Fund may then raise the rate to any level deemed appropriate as a penalty for a country abusing its line of credit. The Fund is designed to provide short-term credit only. If a country abuses the privilege, it is appropriate that a heavy penalty charge be applied.

2. THE FUND AS AN INSTITUTION TO INSURE ORDERLY ADJUSTMENT OF EXCHANGE RATES

Let me repeat again that the resources of the Fund merely constitute a supplement to the ordinary, private, foreign-exchange opera-

tions. It is conceivable that the resources of the Fund may be used relatively seldom or only by a relatively small number of countries or at any rate by countries whose share in the total world trade is relatively small. In fact it is, I think, likely that the Fund will be used a good deal, although *relatively* seldom compared with the volume of private foreign-exchange transactions conducted outside of the Fund. Should it, however, prove true that no member used its line of credit with the Fund at all, it would by no means follow that the Fund would not perform a useful purpose. The line of credit, though unused, would have the great value of providing confidence and security to countries. Thus protected they would be in a position to go forward without imposing unnecessary restrictive measures to safeguard their balance of payment position—measures that could only operate to curtail the volume of world trade and thus injure the whole world economy.

Quite apart from the line of credit afforded by the Fund and quite apart from the extent to which it is used or merely held in reserve, there are other functions which by themselves alone justify the establishment of the Fund. Countries do feel, in fact, the need of a line of credit to help them over their short-run balance of payment problems. But even though this were not the case, an international monetary agency with authority to regularize orderly changes in exchange rates would still be needed. If there were no such international agency, countries would be quite free to engage in irresponsible and competitive currency depreciation.

It is well known that no one can say now what the proper foreign-exchange value of the currencies of most countries in the world should be in the postwar period. We shall have to find by experimentation and experience what the appropriate rate is. If every country were left free to make this decision quite on its own without international consultation, we can be sure that the process of experimentation and adjustment would be a very chaotic and disturbing one. No country can be sufficiently objective to set an exchange rate that will not tend to give it an undue advantage. When every country seeks to attain an unduly favorable exchange rate, the whole world is let loose upon a stormy sea of competitive exchange depreciation.

The Fund provides machinery for a careful determination of the initial exchange rate and for an orderly process of adjustment in the difficult transition period. It provides for consultation, study and

joint determination of the exchange rates between the member country in question and the authorities of the Fund. Such a procedure will permit the finding of a proper exchange rate during the period of trial and error and of experimentation.

The orderly determination of an appropriate exchange rate is one of the urgent problems that must be dealt with in the transition period. This is one of the reasons why it is important that the Fund be soon established. If the Fund is not established at an early date, there would be no international agency to assist in an orderly and objective manner in finding appropriate exchange rates in the transition period from war to peace.

Also, for the long run it is equally important that an international agency be established to provide for orderly changes of exchange rates whenever economic developments indicate that such changes would be desirable from the standpoint of international monetary stability.

Those who argue that there is no need for such an international agency, that all we need to do is to re-establish the old rigid gold standard, are fighting for a lost cause. The old gold standard cannot be reconstituted. There is not one of the group of democratic nations of northern or western Europe that would join in the re-establishment of the gold standard. The reasons for this have already been explained in the preceding chapter. No country will again sacrifice the goal of internal stability and full employment on the altar of the gold standard. To repeat, they will not permit their internal structure of income, wages and prices to be deflated to meet the requirements of a rigid foreign-exchange rate. On the contrary, they insist, and rightly so, that the first consideration must be internal economic stability and full employment and that the foreign-exchange rates must be adjusted so as to promote and sustain these domestic ends.

The orderly adjustment of exchange rates to the requirements of internal stability and full employment offers the means by which we can achieve at one and the same time both internal stability and full employment and, on the other hand, international stability and a high level of world trade. It is not difficult to see that a high level of world trade can only be achieved when the various countries have high levels of business activity and employment at home. It is also not difficult to see that the orderly adjustment of exchange rates promotes both internal and international stability. The orderly adjust-

ment of exchange rates does not mean that one country undercuts another. On the contrary, it means an exchange rate that keeps every country in an appropriate balance with the rest of the world. An orderly adjustment of exchange rates means that no country will be permitted to take an unfair advantage of other countries in foreign-exchange markets. It means the fixing of exchange rates so that the various countries will be on a fair competitive basis one with the other. Since the artificial advantage of competitive currency depreciation will not be tolerated, each country must face the world market in terms of efficiency and productivity. Each country will be able to sell those products in which it has the highest economic efficiency in terms of human skills and natural resources.

3. THE INTERNATIONAL MONETARY FUND AS A MEANS FOR INTERNATIONAL CONSULTATION

The Fund will be concerned not merely with the immediate and specific problem of making appropriate orderly changes in the exchange rates. It will be concerned with far more fundamental problems of international co-operation and of promoting a balanced development of world trade and world production. One of the purposes of the Fund as set out in Article I is: "To facilitate the expansion and balanced growth of international trade, and to contribute thereby to the promotion and maintenance of high levels of employment and real income and to the development of the productive resources of all members as primary objectives of economic policy."

To this end the Fund is obligated to engage in continuous research on international conditions and developments with a view to discovering measures that will promote balance. The statutes of the Fund provide that if any member is using the resources of the Fund in a manner contrary to its purposes, the Fund shall make a report to the member, setting forth the factors involved that tend to upset the general world balance, and in particular the lack of balance between the member in question and the rest of the world. It is further provided in the statutes that the Fund may by a two-thirds majority vote publish a report to any member regarding any monetary or economic conditions and developments in such member country that directly tend to produce a serious international disequilibrium. The Fund may, moreover, communicate at any time information to any member regarding such matters.

An international agency armed with powers to obtain adequate information from the various member countries and entrusted with the duty of analyzing and reporting to the entire world on this information will contribute very greatly to an orderly world development. It was generally recognized, for example, that one of the important contributing factors to the chaotic development in the late twenties and early thirties was complete lack of information about short-term international balances held abroad by each of the leading creditor countries. If it had been known how fantastically large these short-term holdings then were, we can be sure that financial institutions, both public and private, would have managed their affairs in a more prudent manner.

The statutes of the Fund require each member to furnish information deemed necessary to promote the functions and purposes of the Fund and to enable it to discharge effectively its duties. The information that may be requested involves data, among other things, on the following items:

1. Official and private holdings at home and abroad of gold and foreign exchange.
2. International balance of payments of each country.
3. International investment position of each country.
4. National income of member countries.
5. Commodity price indices.
6. Comprehensive statement of exchange controls, if any are in effect in the various countries.
7. Amounts awaiting clearance in commercial and financial transactions where official clearing arrangements exist and the length of time during which such arrangements have been outstanding.

The Fund will accordingly enlarge the fund of information upon which each country can plan an orderly program of adjustment of its economic life in relation to the world economy. This function alone would justify the establishment of the International Monetary Fund.

CONCLUSIONS WITH RESPECT TO THE FUNCTIONS OF THE FUND

To repeat, any one of the three functions discussed above would justify the establishment of the Fund. Taking them all together each function reinforces the other. The function of gathering information, of engaging in research, of making reports with respect to

economic conditions and developments throughout the world, of communicating views to member countries with respect to its own internal economic conditions and development in relation to the international situation—all of this will help to maintain a world balance. In so far as this is the case, the performance of this function would of itself minimize the extent to which orderly adjustment of exchange rates may become necessary and the extent to which any member needs to draw upon its line of credit with the Fund. Indeed, it would be a most happy situation if these latter functions should not need to be performed at all. So smooth and happy a development is not at all humanly probable. It will doubtless become necessary to make from time to time an orderly adjustment in exchange rates; and it will become necessary for the member countries from time to time to draw upon their line of credit with the Fund.

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